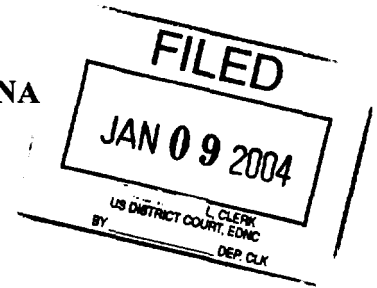


IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
NORTHERN DIVISION

2:04-cv-2-BO(2)  
No. \_\_\_\_\_



THE NATIONAL AUDUBON SOCIETY,  
NORTH CAROLINA WILDLIFE  
FEDERATION, and DEFENDERS OF  
WILDLIFE,

Plaintiffs,

v.

DEPARTMENT OF THE NAVY; GORDON  
R. ENGLAND, SECRETARY OF THE  
NAVY; HANSFORD T. JOHNSON,  
ASSISTANT SECRETARY OF THE  
NAVY; R.M. FLANAGAN, MAJOR  
GENERAL, U.S. MARINE CORPS,  
COMMANDING GENERAL, MARINE  
CORPS AIR STATION, CHERRY POINT

Defendants.

**COMPLAINT**

**NATURE OF THIS CASE**

1. This action challenges the defendants' violations of the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4321 et seq., in connection with the decisions by the Department of the Navy ("Navy") to construct an outlying landing field ("OLF") in Washington County, North Carolina and Beaufort County, North Carolina ("Site C") and to designate approximately 900 square miles of new Military Operations Area ("MOA") airspace in northeastern North Carolina. On September 3, 2003, the Navy issued a Record of Decision

("ROD") approving a final environmental impact statement ("Final EIS") and selecting an alternative to homebase 120 aircraft at Naval Air Station ("NAS") Oceana, Virginia and 24 aircraft at Marine Corps Air Station ("MCAS") Cherry Point, North Carolina, and to construct the OLF at Site C. On December 10, 2003, the Department of the Navy issued a Finding of No Significant Impact ("FONSI") on the establishment of two MOAs over parts of Carteret, Pamlico, Craven, Beaufort, Hyde, Washington, and Tyrrell Counties, North Carolina. See Exhibit 1.

2. Development of the OLF and designation of the MOAs in northeastern North Carolina will substantially harm internationally important waterfowl populations and National Wildlife Refuges ("NWR") established to conserve these species. In making its decision to develop the OLF at Site C, the Navy failed to meet its obligations under NEPA to take a hard look at the environmental impacts of the proposed action, disclose those impacts to the public in an EIS, and rigorously explore and objectively evaluate reasonable alternatives to the proposed action. The Navy also failed to supplement its Final EIS on the OLF after making substantial changes to the proposal and in light of new information relevant to environmental concerns.

3. The Navy astoundingly concluded that designation of approximately 900 square miles of MOA for low level combat maneuvers and other training, affecting four national wildlife refuges ("NWR") and the Cape Lookout National Seashore, would have no significant effect on the environment. Consequently, the Navy did not prepare an EIS to assess the certain significant environmental impacts from designation of the MOA to the public, and identify alternatives and mitigation measures that could reduce impacts of the proposed action. The Navy violated NEPA in concluding this proposed action would have no significant effect on the environment and failing to prepare a required EIS.

## **JURISDICTION AND VENUE**

4. This action arises under NEPA. This Court has jurisdiction of this action pursuant to 28 U.S.C. § 1331, and may issue a declaratory judgment and grant further relief pursuant to 28 U.S.C. §§ 2201, 2202. Plaintiffs have a right to bring this action pursuant to, inter alia, the Administrative Procedure Act, 5 U.S.C. §§ 701-06.

5. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(e).

## **PARTIES AND STANDING**

6. Plaintiff National Audubon Society (“Audubon”) is a not-for-profit corporation founded in 1905. Audubon currently has approximately 500,000 members throughout the country, and more than 10,500 members in North Carolina.

7. Audubon has members who live in the general vicinity of the proposed OLF and MOAs, as well as members from across the country, who visit, recreate, conduct research, observe birds and other wildlife, conduct educational activities, photograph and otherwise use and enjoy the public lands, wetlands, and other lands and waters in the vicinity of the proposed OLF and MOAs. They also observe, study, photograph and enjoy the natural resources and wildlife on those lands.

8. Audubon's mission is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity. In furtherance of this mission, it maintains a national network of community-based nature centers and chapters, engaging millions of people of all ages and backgrounds in positive conservation experiences and educating them about important natural resources.

9. In addition to chapter meetings and its nature centers, Audubon communicates with its members through magazines and newsletters that are used to inform and educate them about

their interests and matters of importance to the organization's mission. Its magazine, *Audubon*, is published four times per year with a readership of approximately 2 million people. In addition, each state chapter distributes a newsletter (e.g., *Audubon North Carolina*) at least semi-annually. The magazine and newsletters are distributed to public libraries and schools, and reach millions of people.

10. In June 2003, the *Audubon* magazine ran a story, "Collision Course," by David Malakoff concerning the controversy and threat to birds and wildlife and pilot safety associated with the OLF. *Audubon North Carolina* ran a cover story about the Navy's Super Hornet aircraft and the OLF in its Spring/Summer 2003 newsletter, and published an update on the controversy in its recent Fall/Winter 2003 newsletter.

11. Audubon has extensive expertise in identifying important bird habitat, assessing threats to that habitat, and analyzing trends in bird populations. Audubon also conducts numerous scientific and educational programs, and advocates to protect and conserve areas that sustain important bird populations.

12. Audubon scientists work with each chapter to organize and implement an annual Christmas Bird Count (CBC) around the country. The CBC, which is in its 104th year, is the oldest continuous bird survey in the entire country. Audubon scientists collect and analyze the data from the CBC and make that data available to other scientists for use in their own studies'.

13. Within North Carolina, the CBC is conducted at many locations, including the Pocosin Lakes NWR, Lake Mattamuskeet NWR, Pea Island NWR, Alligator River NWR, Swan Quarter NWR, and parts of Cape Lookout National Seashore. Information obtained from the CBC is used by the military to develop the Bird Avoidance Models for areas around the country, specifically including the areas for the proposed OLF and MOAs.

14. Audubon scientists' data and expertise are also used to manage biologically sensitive lands around the country, including in North Carolina. Audubon owns and manages the 6,000 acre Pine Island Sanctuary, and either owns or manages 19 coastal island sanctuaries between the mouth of the Cape Fear River and Cape Lookout National Seashore. In addition, the National Audubon Society is the U.S. Agent for the International Important Bird Areas Program, for which it identifies the most important remaining habitat for birds. The Pocosin Lakes NWR and Mattamuskeet NWR are among those that have been officially designated as Internationally Important Bird Areas pursuant to this program.

15. Naval Super Hornet aircraft flying at low altitudes near and over the Pungo Unit of the Pocosin Lakes NWR will disrupt bird activity in the area, causing bird populations to scatter and disperse and possibly move to other areas. In addition, the proposed management by the Navy of the 30,000 acres of prime foraging habitat for the bird populations to exclude them from the area may result in dramatic reductions of birds. Military aircraft flying at low altitudes near and over the four other NWRs in the area and the National Seashore as contemplated for the MOAs will also disrupt bird activity, causing bird populations to scatter and disperse and seek safe shelter elsewhere. Such disruption and reduction in numbers will preclude Audubon's members and scientists from observing, photographing, studying and enjoying the birds. The combined effects of the proposed OLF and MOAs will reduce the fitness of the Wildlife Refuges for bird habitat, thereby interfering with and harming the interests of Audubon and its members.

16. As set forth above, Audubon and its members have interests which are adversely affected and irreparably harmed by the decisions of the Navy regarding development of the OLF and designation of the MOAs. These actual and potential injuries have been and continue to be caused by the illegal decisions of the Department of the Navy regarding development of the OLF

and designation of the MOAs. The injuries will not be redressed except by an order from this Court vacating the ROD for the Final EIS for the OLF and the FONSI for the MOAs, requiring defendants to prepare adequate environmental documents for the actions, and ordering the other relief sought in this action.

17. Plaintiff Defenders of Wildlife ("Defenders") is a national non-profit, public interest organization founded in 1947. It has approximately one million members and supporters, including 9,000 members and supporters in North Carolina. It also has more than 10,000 members of its "Defenders Electronic Network" in North Carolina.

18. Defenders has members who live in the general vicinity of the proposed OLF and MOAs, and members from across the country, who visit, recreate, observe birds and other wildlife, photograph and otherwise use and enjoy the public lands, wetlands and other lands in the vicinity of the proposed OLF and MOAs.

19. Defenders is dedicated to the protection of all native wild animals and plants in their natural communities, and the preservation of the habitat on which they depend. Defenders advocates new approaches to wildlife conservation that will help keep species from becoming endangered, and the organization employs education, litigation, research, legislation and advocacy to defend wildlife and their habitat. For example, Defenders organized the Commission on New Directions for the National Wildlife Refuge System, which identified threats to wildlife refuges, including harmful test bombing, oil and gas drilling, grazing and other "secondary uses."

20. Defenders has been active in eastern North Carolina, promoting the introduction of the endangered red wolf to Alligator River NWR, and then successfully defending that program in court. The red wolves now range throughout much of northeastern North Carolina,

specifically including the Mattamuskeet NWR, Swanquarter NWR, and Wilderness Area and Pocosin Lakes NWR and much of the agricultural land to the west of that refuge that the Navy has targeted for acquisition.

21. Defenders has been actively engaged in the environmental review process for the introduction of the Super Hornet to the eastern United States, and prepared and submitted comments on the Draft EIS . Defenders also has submitted comments on the Alligator River NWR Comprehensive Conservation Plan.

22. Defenders, its staff, and members derive scientific, aesthetic, and spiritual benefit from the existence of the NWRs that will be affected by the proposed OLF and MOAs, and from the abundant bird and wildlife species -- including the red wolf and black bear, that depend on this ecosystem. Defenders' members have educational and scientific interests in the preservation of the refuges and species in eastern North Carolina.

23. Military aircraft activity associated with the proposed OLF and MOAs will disrupt and interfere with birds and wildlife that reside, hunt, feed and travel through the NWRs and North Carolina Game Lands in the area. The Navy's acquisition of the 30,000 acres surrounding the OLF and management of those lands to exclude wildlife and birds will severely constrain the ability of Defenders' members to use and enjoy the wildlife refuges and surrounding lands for observation, study, and photography of wildlife and birds. The noise impacts on the Pocosin Lakes NWR, Mattamuskeet NWR, Swanquarter NWR, Swanquarter Wilderness Area and Alligator River NWR will also interfere with the members' use and enjoyment of these public lands and their ability to observe wildlife and birds in their natural habitat.

24. As set forth above, Defenders and its members have interests which are adversely affected and irreparably harmed by the decisions of the Navy regarding development of the OLF

and designation of the MOAs. These actual and potential injuries have been and continue to be caused by the illegal decisions of the Navy regarding development of the OLF and designation of the MOAs. These injuries will not be redressed except by an order from this Court vacating the ROD for the Final EIS for the OLF and the FONSI for the MOAs, requiring defendants to prepare adequate environmental documents for the actions, and ordering the other relief sought in this action.

25. Plaintiff North Carolina Wildlife Federation (“NCWF”) is a not-for-profit corporation founded in 1945. NCWF, which is an affiliate of the National Wildlife Federation (NWF), has 17,000 members in North Carolina. NWF has approximately 5 million members, including 25,000 members in North Carolina.

26. NCWF has members who live in the vicinity of the proposed OLF and MOAs, and members from across the state, who visit, recreate, observe birds and other wildlife, photograph and otherwise use and enjoy the public lands, wetlands and other lands in the vicinity of the proposed OLF and MOAs.

27. The NCWF's mission is to educate, inspire and assist individuals and organizations of diverse cultures to conserve wildlife and other natural resources and to protect the environment in order to achieve a peaceful, equitable and sustainable future. Its primary goal is to raise awareness and involve people of all ages in conservation and protection the environment. The NCWF advocates for protection and conservation of wildlife habitat.

28. The NCWF works to promote and protect areas for hunting, fishing and wildlife observation for sportsmen and wildlife enthusiasts. Its specific activities include lobbying for the creation of Roanoke River NWR and the Alligator River NWR, and advocacy to support the NWR system and its mission.



29. In February 2003, the NCWF passed a resolution opposing the Alternative Sites C and D for the OLF and sent letters to the North Carolina Congressional delegation regarding its opposition. The NCWF and the NWF also submitted comments on the Draft EIS and Final EIS for the Introduction of the Super Hornet Aircraft to the East Coast of the United States.

30. Military aircraft activity associated with the proposed OLF and MOAs will disrupt and interfere with bird and wildlife that reside, hunt, feed and travel through the NWRs and surrounding lands in the area. The Navy's acquisition of the 30,000 acres surrounding the OLF and management of those lands to exclude wildlife and birds will severely constrain the ability of NCWF's members to use and enjoy the wildlife refuges, game lands and surrounding lands for observation, hunting and fishing. The noise and other impacts on the Pocosin Lakes NWR, Mattamuskeet NWR, Swanquarter NWR, Alligator River NWR and Swanquarter Wilderness Area, as well as the Van Swamp Game Land, Pungo River Game Land, Batchelor Bay Game Land, New Lake Game Land and Gull Rock Game Land from the MOAs, will also interfere with the members' use and enjoyment of these public lands and their ability to observe and hunt wildlife and birds in their natural habitat.

31. As set forth above, NCWF and its members have interests which are adversely affected and irreparably harmed by the decisions of the Navy regarding development of the OLF and designation of the MOAs. These actual and potential injuries have been and continue to be caused by the illegal decisions of the Navy regarding development of the OLF and designation of the MOAs. These injuries will not be redressed except by an order from this Court vacating the ROD for the Final EIS for the OLF and the FONSI for the MOAs, requiring defendants to prepare adequate environmental documents for the actions, and ordering the relief sought in this action.

32. Defendant Department of the Navy is an agency within the United States Department of Defense, organized and existing pursuant to Title 10 of the United States Code. The Navy is the federal agency that took the final agency action challenged herein.

33. Defendant Gordon R. England is the Secretary of the Navy, and is sued in his official capacity as the head of the federal agency that took the final agency action challenged herein.

34. Defendant Hansford T. Johnson is an Assistant Secretary of the Navy for Installations and Environment, and is sued in his official capacity. Defendant Johnson signed the Record of Decision which constitutes the final agency action challenged herein.

35. Defendant Robert M. Flanagan is commanding General of the U.S. Marine Corps at Cherry Point, and is sued in his official capacity. Defendant Flanagan signed the Finding of No Significant Impact for the Military Operations Areas in Eastern North Carolina, which constitutes the final agency action challenged herein.

## **FACTS**

### **Environmental Setting**

36. The U.S. Fish and Wildlife Service ("USFWS") estimates that Lake Mattamuskeet NWR and the Pungo Unit of Pocosin Lakes NWR routinely support between 200,000 to 300,000 waterfowl each year, including 50,000 to 60,000 snow geese; 50,000 to 70,000 tundra swans; 5,000 to 10,000 Canada geese; and over 100,000 individuals of greater than 20 species of ducks. North Carolina is of particular importance to the world's population of tundra swans. The USFWS estimates that approximately 60,000 to 80,000 tundra swan – about 70 to 80 percent of the entire population of this species in the eastern United States – spend the winter in northeastern North Carolina.

37. Studies document that aircraft overflights disturb some bird species causing them to take flight. Snow geese, one of the most abundant species in the vicinity of the OLF and MOA, are particularly sensitive to aircraft overflights. Other gregarious species like canvasbacks, ring-necked ducks, greater scaup, lesser scaup, and redheads that flock together on large bodies of water like Pungo Lake, Lake Mattamuskeet and Pamlico Sound for security and food do not adapt to disturbance factors.

38. Tundra swans, snow geese, and other waterfowl that winter in northeastern North Carolina migrate thousands of miles to arctic breeding areas. Increased flushing of swans, geese and other waterfowl by aircraft overflights results in decreased feeding time and increased stress, decreasing the overall fitness of affected birds for the strenuous migration required to reach breeding grounds and reducing overall reproductive success. Decreased fitness of birds resulting from disturbance may adversely affect the entire population of the species. According to the USFWS, military overflights in Carteret County have contributed to a decline of 70-90% of redheads (a species of duck) in the area of Cedar Island NWR.

39. The airstrip for the Site C OLF would be constructed within 3.5 miles of the Pungo Unit of the Pocosin Lakes NWR. Flight paths to and from the OLF from MCAS Cherry Point pass over the Pungo Unit of the Pocosin Lakes NWR. The flight path line of the 2,000 to 2,500 feet above ground level holding pattern and the approach path for the OLF passes within approximately 1000 feet of the western boundary of the Pungo Unit and within approximately 500 feet of the B Canal Tract of Pocosin Lakes NWR. The Final EIS states that the flight path line for the holding pattern is best represented as a band; consequently, aircraft on holding patterns at the OLF will routinely pass over the Pocosin Lakes NWR at flight elevations of 2,000 to 2,500 feet.

40. The Pungo Unit of Pocosin Lakes NWR was established in 1963 as an inviolate waterfowl sanctuary. The USFWS estimates that approximately 100,000 waterfowl winter annually on the Pungo Unit of Pocosin Lakes NWR including approximately 20,000 tundra swans and 44,000 snow geese in the winter of 2001-2002. The number of snow geese wintering on the Pungo Unit of Pocosin Lakes NWR reached an all time high of 65,000 birds during the winter of 2002-2003. Approximately 25% of the winter population of tundra swans in North Carolina occur on the Pungo Unit of Pocosin Lakes NWR.

41. Most of the waterfowl that winter on the Pungo Unit of the NWR regularly fly out to feed in private agricultural fields to the west of the Pungo Unit, in the vicinity of the proposed OLF. The USFWS informed the Navy that the use of agricultural lands surrounding the NWR through the use of conservation easements and other agreements on neighboring private lands is vital to the NWR.

42. Elimination of food sources utilized by wintering waterfowl will adversely affect the birds. USFWS biologists and managers have concluded that the proposed OLF's "impacts to NWR-related waterfowl wintering habitat, and certain refuge operations are unacceptable." USFWS biologists and managers further conclude "[t]he construction and operation of an OLF at Site C, and the associated bird reduction actions (e.g., habitat alteration, lethal and nonlethal control of avian species), would have a significant negative impact on waterfowl wintering at Pocosin Lakes NWR and potentially any other siting alternative near a NWR, and could lead to a long term decline in tundra swans, snow goose, and Canada goose concentrations at the refuge." USFWS Technical Assistance Comments at 7 (August 2003). This document is attached as Exhibit 2.

43. During that 12 day period, the radar unit recorded birds moving through the vertical radar beam more than 450,000 times. This equates to an average of 31 birds per minute during the course of the 12 day study at the end of the migratory season.

44. The proposed Mattamuskeet MOA overlies portions of four NWRs: Mattamuskeet NWR, Pocosin Lakes NWR, Swanquarter NWR, and Alligator River NWR. Mattamuskeet NWR in Hyde County includes 40,000 acre Lake Mattamuskeet, North Carolina's largest natural lake. Swanquarter NWR in Hyde County includes the Swanquarter Wilderness Area designated as wilderness by Congress. Pocosin Lakes NWR was established in 1990 incorporating the Pungo Unit established in 1963 and includes portions of Washington, Hyde and Tyrrell Counties. Alligator River NWR includes portions of Dare and Hyde Counties.

45. Large numbers of waterfowl winter in the area covered by the proposed Mattamuskeet MOA including 50,000 to 60,000 snow geese; 50,000 to 70,000 tundra swans; 5,000 to 10,000 Canada geese; and over 100,000 individuals of greater than 20 species of ducks. Most of the tundra swans and snow geese that winter in North Carolina occur on refuges and surrounding farmlands within the proposed Mattamuskeet MOA. USFWS waterfowl survey data reveal that 30,000 to 40,000 northern pintail ducks, about 50 to 60% of the Atlantic Flyway total, routinely overwinter in North Carolina with approximately 50% of this total on Mattamuskeet NWR and surrounding farmlands.

46. Utilization of the proposed Mattamuskeet MOA for military training and combat maneuvers will disturb and adversely affect waterfowl and other wildlife on four NWRs and surrounding lands.

47. The proposed Core MOA overlies most of the Cape Lookout National Seashore in Carteret County, North Carolina. The Cape Lookout National Seashore is a component of the National Park system.

48. Cape Lookout National Seashore provides nesting and wintering habitat for the piping plover, a species listed as threatened under the Endangered Species Act. Much of the Cape Lookout National Seashore is designated critical habitat for the piping plover. The Navy concluded the designation and use of the proposed MOAs would have no effect on the threatened piping plover or any of an additional twenty threatened or endangered species within the project footprint of the proposed Core and Mattamuskeet MOAs. The Navy cites studies in the environmental assessment (“EA”) that document rocket launches at an Air Force facility in California affect the endangered snowy plover up to 2.5 miles from the launch site. To the extent the Navy relies on these studies to support a conclusion that the aircraft overflight and noise of piping plovers has no effect on piping plovers, these studies rebut the Navy’s conclusion that designation and use of the proposed MOAs would have no effect on the piping plover.

49. The USFWS, the expert agency charged with administration of the Endangered Species Act, recommended that the Navy prepare an EIS to fully evaluate the potential impacts designation and use of the MOAs will have on federally protected species. A copy of the USFWS letter on the MOAs is attached as Exhibit 3. The Navy has determined it will not prepare an EIS.

50. The USFWS has determined and informed the Department of the Navy that additional site-specific assessments of the effects of aircraft overflights on avian behavior and physiology must be conducted to determine the impacts of designation of the MOAs. The Navy has not

prepared site specific assessments of the aircraft overflights within the proposed MOA on the threatened piping plover.

### **Decision to Homebase Super Hornet Aircraft**

51. On June 26, 2000, the Navy published in the Federal Register a Notice of Intent to prepare an EIS for its planned "Introduction of the F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States."

52. The Navy issued a Draft EIS on the proposal in July 2002. The Draft EIS stated that the Navy intended to assign 10 squadrons, each consisting of 14 aircraft, to the Atlantic Fleet on the East Coast.

53. The Draft EIS stated that the Navy had identified 77 potential homebase sites (the Draft EIS and Final EIS actually lists 78 sites) in the eastern United States for the introduction of the Super Hornet aircraft. Each of these potential homebases was either a current or former military facility.

54. The Navy developed criteria for evaluating the homebases. These criteria were grouped into three general categories: (1) requirements for homebase location and layout (e.g., less than 50 nautical miles (NM) to carrier operating area, field elevation not to exceed 1,000 feet above mean sea level (MSL) and a maximum distance of 120 NM to training ranges); (2) operational readiness requirements of the Super Hornet squadrons (e.g., an unrestricted tempo of operations such as the absence of routine shut-down of normal operations, ability to accommodate 24-hour operations without restricting normal traffic flow, and ability to conduct unrestricted 24-hour fleet carrier landing practice (FCLP) on station or at an OLF); and (3) operational support facilities required of the homebase.

55. The Draft EIS stated that after applying the criteria, it had eliminated all but three facilities from final consideration. In the preliminary screening process, only the operational criteria were applied. There was no consideration of environmental impacts until the Navy had eliminated 74 of the 77 possible military installations.

56. In the initial list of 77 potential homebase sites were nine former military air facilities. In the DEIS, the Navy stated that it had eliminated each of these 9 facilities from further consideration.

57. In explaining its decision to eliminate these former military facilities, the Navy stated its conclusion that "the large number of Super Hornet operations would be incompatible with the type and temp of general aviation and commercial aircraft operations that occur at the former military facilities." No other reason, analysis or discussion was offered for eliminating these former military facilities. The Navy gave no consideration to changing or altering the uses of these installations for use either as homebases or as an OLF.

58. The initial list of 77 potential homebase sites included 22 facilities currently operated by the U.S. Army.

55. In explaining its decision to eliminate all 22 U.S. Army facilities from further consideration, the Navy stated that "they generally have too minimal supporting airfield infrastructure and facilities to be considered reasonable siting alternatives." No other reason, analysis or discussion was offered for eliminating these U.S. Army facilities.

56. The initial list of 77 homebase alternatives included 27 facilities currently operated by the U.S. Air Force.

57. In explaining its decision to eliminate all 27 U.S. Air Force facilities from further consideration, the Navy stated that "the Air Force determined the existing Air Force installations



on the East Coast were not available to accommodate the Super Hornet operational criteria." No other reason, analysis or discussion was offered for eliminating these U.S. Air Force facilities.

58. As a result of the elimination of the former military installations, the U.S. Army facilities and the U.S. Air Force operations, the Navy was left with 20 Navy and U.S. Marine Corps facilities for further evaluation.

59. The Navy applied the location and layout criteria to these 20 Navy and Marine Corps facilities during the secondary screening process, and eliminated all but three from final consideration.

60. The three alternative sites considered are NAS Oceana in Virginia, MCAS Cherry Point in North Carolina, and MCAS Beaufort in South Carolina. Three of the alternative homebasing alternatives evaluated assumed that all 10 squadrons would be located at one of these three facilities. The other alternative homebasing scenarios evaluated consisted of housing varying numbers of Super Hornet and Fleet Replacement Squadrons ("FRS") between two of the three facilities.

61. In the Draft EIS, the Navy stated that of the three alternative homebases, only NAS Oceana and NALF Fortress met all four of its siting criteria. In the Draft EIS, the Navy identified Alternative 1 (siting all of the squadrons at NAS Oceana) and Alternative 6 (housing 8 of the squadrons at NAS Oceana and 2 of the squadrons at MCAS Cherry Point) as its preferred alternatives.

62. On July 18, 2003, the Navy issued its Final EIS for the Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States.

63. The Final EIS identifies ALT 1 (homebasing all 10 squadrons at NAS Oceana) and ALT 6 (homebasing 8 squadrons at NAS Oceana and 2 squadrons at MCAS Cherry Point) as its preferred homebasing alternatives.

57. On September 10, 2003, the Navy published its Record of Decision. The ROD selects ALT 6 (8 squadrons at NAS Oceana and 2 squadrons at MCAS Cherry Point) for homebasing the Super Hornets.

#### **Decision to Develop OLF at Site C**

64. In conjunction with the decision on homebasing the Super Hornets, the Navy conducted an assessment to identify an OLF to provide a facility for fleet carrier landing practice ("FCLP").

65. The Department of the Navy determined an OLF would be necessary only if four or more of the Super Hornet squadrons are stationed at MCAS Cherry Point or MCAS Beaufort. The Navy concluded existing facilities in southeastern Virginia at NAS Oceana and the nearby practice landing field at NALF Fentress are adequate to meet all operational requirements to support the Super Hornet squadrons.

66. Despite the acknowledged adequacy of existing facilities at NAS Oceana and NALF Fentress to meet operational needs for the Super Hornets, the Navy determined an OLF is necessary to mitigate noise impacts on encroaching residential development around NALF Fentress.

67. The Navy assessed six alternative sites for development of an OLF, five in northeastern North Carolina and one in Burke County, Georgia. The Navy eliminated from detailed analysis a proposed OLF site in Carteret County (Open Grounds Farm) based on potential conflicts with existing Navy and Marine Corps air training areas. The Navy failed

adequately to explain why it could not manage its own training areas in a manner to eliminate potential conflicts. The Department of the Interior has requested that the Navy conduct a detailed assessment of the Carteret County site as a proposed OLF that would meet the Navy's objectives while minimizing environmental impacts and providing opportunities for environmental enhancements. A copy of the letter from the Department of the Interior is attached as Exhibit 4.

68. In the Draft EIS, the Navy identified Site C and Site E in Craven County as its preferred alternatives for an OLF. The Final EIS identifies Site C as its preferred alternative for the OLF.

69. The ROD states that an OLF will be constructed at Site C. In addition, the ROD states that the Navy will acquire 30,000 acres (45 square miles) of surrounding land to prevent encroaching development and to manage the land surrounding the airstrip to exclude birds in an attempt to address the aircraft and bird impact hazards. The Final EIS eliminates Site E in Craven County as a preferred alternative due to the possible presence of wetlands in the 2,000 acre Core Area of the OLF. An examination of the Craven County proposed OLF site determined that, in fact, the Craven County site lacked the hydrological indicators to establish that the site contains wetlands.

70. The Navy states in the Final EIS that the determination whether wetlands are present on the Craven County site would require an assessment that would extend over a two to three year period and that this would not be consistent with the timetable to construct the OLF.

71. Upon information and belief, the Corps of Engineers would not and did not require the Navy to provide well monitoring data over a two-to three-year period to establish that wetland hydrology does not exist at the Craven County site.

72. The Corps of Engineers did inform the Navy that the methodology used by the Navy to determine the presence of wetlands at all of the proposed OLF sites is inaccurate and another methodology must be used to accurately determine the extent wetlands at the sites. A copy of the two letters from the Corps of Engineers to the Navy is attached as Exhibit 5.

73. The Final EIS states that at least one acre of wetland exists within the proposed airfield site at Site C. The Navy did not identify or delineate wetlands at Site C using an appropriate or accurate methodology.

74. The Final EIS states that, under U.S. Environmental Protection Agency Guidelines, the Navy must choose a practicable alternative OLF site that has the least impact on the aquatic environment including wetlands. Unless and until the extent of wetlands on the Craven County site is determined based on an appropriate methodology, the Corps cannot conclude that Site C has less impact on wetlands and the aquatic environment. If the Craven County airfield site contains no wetlands, as originally determined by the Department of the Navy, constructing the OLF at the Craven County site would have less impact on the aquatic environment than Site C which, according to the Final EIS, contains at least one acre of wetland.

75. The Final EIS is replete with references to the Navy's plans to use the OLF beyond FCLP for the Super Hornets and FRS. It states that an OLF at Site C will be "a valuable training asset" for other aircraft, both manned and unmanned. It acknowledges plans to introduce the Joint Strike Fighter (F-25) to the east coast and use the OLF for training of this aircraft. It acknowledges plans to introduce the EA-18G and use the OLF for training of this aircraft. Yet the Navy declined to examine or analyze the potential cumulative and indirect impacts of these connected actions in the Final EIS.

76. In the Final EIS, the Navy states that these plans are too preliminary to warrant analysis as justification for its failure to analyze the impacts of these connected actions.

77. On July 30, 2003, the Navy held a press conference announcing the release of its ROD and decision to locate the OLF at Site C. Admiral Robert J. Natter, Commander of the U.S. Atlantic Fleet, attended and spoke at that press conference. During the press conference, Admiral Natter stated that the OLF would be used by military aircraft, including helicopters, currently based at NAS Oceana and MCAS Cherry Point. Also in attendance was Marine Corps Base Officer Major General Robert M. Flanagan, who stated in response to a reporter's question that the OLF would be used by Harriers and helicopters currently stationed at MCAS Cherry Point. The Final EIS does not include information about the types of aircraft other than the Super Hornets that would use the OLF, the frequency of that use, or the direct, indirect and cumulative effects of that use on the community and environment surrounding Site C, or on the birds and wildlife and Pocosin Lakes NWR.

#### **Assessment of suitability and impacts of Site C OLF**

78. Bird strike hazards exist throughout the world; however, risks are higher near migration routes and favorable habitat. The U.S. Air Force ("USAF") has recorded more than 38,000 bird-aircraft strikes since 1985. These strikes have killed 33 aviators, destroyed 30 military aircraft, and caused more than \$500 million in damage to military equipment. The USAF reported more than 3,700 bird strikes in 2002 alone. See <http://www.birdstrike.org/birds.htm>.

79. Waterfowl represented 77% of the reported bird strikes causing damage to U.S. civil aircraft between 1990 and 2002. Approximately 90% of all bird strikes in the United States are by species that are federally protected pursuant to the Migratory Bird Treaty Act.

80. According to the Federal Aviation Administration ("FAA"), about 15% of all bird strikes result in damage to aircraft. See <http://www.birdstrike.org/risk/threat.htm>.

81. According to the USAF's Aviation Safety Division, 98.4% of bird strikes occur while flying at or below 3,000 feet AGL. The FCLP missions conducted at the OLF will occur below 3,000 feet AGL. Four of the six alternative sites for the OLF (Sites A-D) are located within the Atlantic Flyway, the primary migratory route for migratory waterfowl in the eastern United States. In its Final EIS, the Navy states that a Bird Avoidance Model (BAM) risk analysis gave each of these sites a severe risk rating for at least 49% of the year. In comparison, the BAM risk at NAS Oceana and NALF Fentress is rated severe for 31% and 36% of the year, respectively.

82. The Navy does not have facilities or conduct aviation training missions at any site with a BAM risk rating of 50% or more. The OLF site that the Navy selected, Site C, has a BAM risk of severe for 50% of the year.

83. The BAM is a historical risk model that distributes bird populations across the lower 48 states within the United States. The model is integrated by a GIS system which incorporates bird density data taken from nationwide bird census databases. The model is chronologically divided into 26 two-week periods, each of which is further divided into Dawn/Dusk, Day, and Night.

84. The BAM was originally developed by the USAF to assist military pilots in selecting low-level training routes and ranges with the lowest bird strike risk. It was later modified for use in environmental assessments. The BAM is available on-line at [www.usahas.com/bam](http://www.usahas.com/bam).

85. The BAM provides hazard assessment in three major categories (Severe, Moderate, and Low), and each category is sub-divided into three levels (e.g., Severe 1, Severe 2, Severe 3). Each USAF installation develops and implements flight restrictions based on BAM forecasts.

86. The BAM is not capable of eliminating the potential for bird strikes, but rather is a tool for assessing the risk to aircraft safety over time.

87. To mitigate the potential for bird strikes, bird detection radar studies must be performed at a particular location over time to directly observe and evaluate bird behavior, bird movement and activity, and bird density. A commonly used radar tool is the Mobile Aviation Radar System ("MARS").

88. With information obtained from the site-specific BAM and data from site-specific radar studies, the aircraft facility then must develop a Bird Aircraft Strike Hazard ("BASH") plan that details the specific measures that will be taken to manage and mitigate the risk of bird strikes.

89. The BAM risk rating for Alternative Site A in Perquimans County, North Carolina, is severe for 49% of the year. The Navy did not conduct a radar survey of bird populations or activity for Site A for the OLF.

90. The BAM risk rating for Alternative Site B in Bertie County, North Carolina, is severe for 49% of the year. The Navy did not conduct a radar survey of bird populations or activity for Site B for the OLF.

91. The BAM risk rating for Alternative Site C is severe for 50% of the year. The Navy conducted a 4-week radar study of bird populations and activity for Site C for the OLF.

92. The BAM risk rating for Alternative Site D in Hyde County, North Carolina is severe for 58% of the year. The Navy did not conduct a radar survey of bird populations or activity for Site D for the OLF. The Navy stated that the BAM risk rating at Site D was too high and would potentially limit the operational flexibility of an OLF at that site. The Navy stated that "adherence to BASH avoidance measures that may be required to ensure safe training conditions

[at Site D], such as scheduling training missions to coincide with periods of lower waterfowl activity, could potentially limit the flexibility of the OLF." FEIS at 12-146.

93. The BAM risk rating for Alternative Site E in Craven County, North Carolina, is severe for 1% of the year. The Navy did not conduct a radar survey of bird populations or activity for Site E for the OLF.

94. The BAM risk rating for Site F in Burke County, Georgia, indicates that the site would never be forecasted for severe bird hazards, and would be moderate for 81% of the year. The Navy did not conduct a radar survey of bird populations or activity for Alternative Site F for the OLF.

95. The only radar study of bird activity for the alternative sites for the OLF that the Navy conducted was for Site C.

96. The Navy did not compare the risk of bird strikes among the alternative OLF sites.

97. The Navy did not establish a threshold of bird strike risk in selecting the site for the OLF.

98. The Navy has no permanent operational bird radar in use at any of its installations.

99. In 2003, the Navy contacted Geo-Marine, Inc. to conduct a MARS study of bird movements at Site C. The Navy was advised by Geo-Marine employees that, due to the short time frame (4 weeks) for the study and the late timing (the end of the migratory season), the survey period was inadequate to quantify, evaluate and assess bird densities and activities within the area.

100. Pursuant to contract with the Navy, Geo-Marine, Inc. conducted a 4-week study of bird populations and activities for Site C between February 18 and March 17, 2003. The migratory season for waterfowl runs from October to March each year. The Navy did not



conduct a radar study of bird activity in the surrounding 30,000 acres that it has targeted for acquisition for the OLF.

101. The Geo-Marine study consisted of setting up one bird radar unit, a 25 kW X-Band radar, at one location in the core area of Site C. This radar unit did not operate from February 24-26, 2003.

102. The MARS unit used by Geo-Marine could not scan vertically and horizontally at the same time. Consequently, the unit scanned vertically for 12 days and horizontally for 12 days. The unit was able to detect bird movement within 1.5 NM of the site at which it was located. The horizontal scan detected bird movement patterns, and the vertical scan detected bird altitude distribution. Geo-Marine, Inc., ("Bird Aircraft Strike Hazard (BASH) Analysis, Proposed Outlying Landing Fields (OLF)", at i (June 2003).

103. According to USFWS biologists, the majority of the swans and snow geese had already left the area by the time the radar was installed. According to USFWS observations and count data, the annual peak count of swans and snow geese for 2002-2003 was 70,470. However, on February 5, 2003, the combined count was a mere 15,615, and on March 5, 2003, the combined count was a miniscule 145 birds. Exhibit 2.

104. If the radar study had been conducted at the peak or middle of the migratory season, the number of times birds passed through the radar beam would have been significantly higher, thereby revealing an even greater risk to the safety of Navy jets and their pilots.

105. No other study of bird movement at Site C was conducted prior to the publication of the FEIS and the issuance of the ROD.

106. Air Force Colonel (Ret.) Jeffrey J. Short wrote to the Navy on April 7, 2003, stating that Site C posed serious dangers to its pilots and the \$40+ million Super Hornets because

of the potential collisions with birds. Col. (Ret.) Short wrote "it would seem to be a folly for the Navy – and the U.S. taxpayers – to invest in the development of an OLF near [the Pocosin Lakes NWR]." In that letter, Col. (Ret.) Short also wrote that "[i]n 25 years of dealing with military BASH issues, I cannot recall a worse place to situate an airfield for jet training [than Site C]."

107. Col. (Ret.) Short also wrote that "[a]ircraft at the proposed OLF would suffer from continual and dangerous hazards to safe operations due to the huge waterfowl populations that use the [Pocosin Lakes NWR] from October to March each year. I should note that my interests are related solely to the safe flight operations at the OLF and protection of the aircrew and aircraft resources that would use the OLF; I have no property or other interests in the area of the proposed site." Copy of Col. (Ret.) Short's letters are attached as Exhibit 6.

108. Col. (Ret.) Short designed and studied the USAF's BASH program for 25 years, and currently is a member of the International Bird Strike Committee. He was the Chief of the USAF BASH Team from 1978 to 1983.

109. To mitigate the risk to military aircraft and pilot safety, the Department of the Navy will have to develop a BASH management plan for the site. According to the USAF, a BASH management plan involves the development of techniques to harass the birds (such as repellants, lasers, cannons and pyrotechnics to keep the birds away from an area) or exclude the birds from the site (such as poisoning or relocating the birds). Lethal methods also may be used. FEIS at 12-147. See also [afsafety.af.mil/AFSC/Bash/harass.html](http://afsafety.af.mil/AFSC/Bash/harass.html); [afsafety.af.mil/AFSC/Bash/exclude.html](http://afsafety.af.mil/AFSC/Bash/exclude.html).

110. The purpose of the BASH plan would be to discourage the presence of birds at the OLF site and on adjacent lands.

111. In its October 11, 2002 comments to the Navy on the DEIS, the U.S. Department of the Interior asked that the specific BASH management techniques be developed and evaluated on a site-by-site basis.

112. To date, the Navy has not prepared a BASH management plan and has not identified what types of harassing or excluding techniques it plans to employ. Since no BASH plan exists, the Navy has not evaluated the impacts of a BASH management plan on the bird populations or the adjacent NWR.

113. The Navy did not conduct any study of bird movement or activity in the 30,000 acres surrounding the Core Area for the OLF that the Navy plans to acquire and manage to mitigate the bird strike risk.

114. The 30,000 acres of agricultural land that the Navy proposes to acquire and manage to exclude birds constitutes approximately 14% of the potentially available foraging habitat within the region. FEIS at 12-123. There is no analysis of the comparative value of these foraging areas to those that will remain. It is possible that the birds will be forced to rely on habitat that is of poorer quality and more remote. The Navy conducted no analysis of the impacts on bird populations from managing the 30,000 acre area, which represents a significant portion of the birds' habitat, to exclude birds and reduce the flight risk.

115. Management of the 30,000 acres of agricultural lands around the Pungo Unit of the Pocosin Lakes NWR to exclude birds will force swans, geese and other birds to range farther for food sources, and thus to fly at higher altitudes. These higher altitude flights could create an even greater flight risk. The Navy did not discuss or analyze this potential risk.

116. Approximately 27% of the total annual operations at the OLF are expected to occur at night, between 10:00 pm and 7:00 am. This timing situation may be aggravated during

surge operations, resulting in a higher number of scheduled night operations.

(<http://www.globalsecurity.org/military/facility/fentress.htm>). ("Surge" operations occur prior to deployment, and are characterized by a dramatic increase in the intensity of operational tempo, including FCLP and other flight operations.) The waterfowl that over-winter in the Pungo Unit are more active at night, flying more frequently among foraging and loafing areas. This activity increases during peak migratory periods. The BAM risk rating at Site C is severe during nighttime hours in the fall, winter and spring. FEIS at 12-132.

117. Scheduling training missions to avoid peak waterfowl activities would severely curtail airfield use. Curtailing airfield use would violate the primary criterion articulated by the Navy of uninterrupted tempo of operations. It was on this basis that the Navy eliminated Site D in Hyde County from consideration as an OLF.

118. The North Carolina Wildlife Resources Commission ("WRC") asserted that the Navy's inference that wildlife and birds would habituate to aircraft noise from the OLF "is neither supported by the research presented nor other statements in the FEIS." The WRC elaborated that the "research did not involve large, high-speed, jet-engine aircraft that produce substantially higher noise levels likely to have an even greater acute, disturbing effect, possibly from higher [flight] elevations." The WRC also questioned whether skittish, free-ranging waterfowl that inhabit the Pocosin Lakes NWR only seasonally would habituate to the tempo and ground-to-air FCLP, "which appears largely different than existing military fly-overs occurring at higher elevations along training routes." The WRC warned that the OLF operations have the potential to disrupt normal behavior throughout the birds' wintering. The WRC concluded that "[s]imilar to direct habitat removal, this could contribute to negative physiological consequences on waterfowl." WRC Comments on FEIS (Aug. 4, 2003).

119. On October 13, 2003, Ronald L. Merritt sent a letter to Secretary England expressing concern with the Navy's plan to operate the OLF near the Pungo Unit of the Pocosin Lakes NWR. Mr. Merritt was employed by Geo-Marine, Inc., the contractor that the Navy hired to conduct and prepare the "Bird Aircraft Strike Hazard (BASH) Analysis for the Proposed Outlying Landing Fields (OLF)" (June 2003), and was the principal author of this document.

120. Mr. Merritt was the Chief of the USAF BASH Team from 1988-1994. Mr. Merritt is an internationally-recognized expert on bird aircraft strike hazards and has developed radar systems for detecting bird movement and has developed site-specific management plans to mitigate bird strike hazards.

121. In his letter to Secretary England, Mr. Merritt stated that the Navy had "minimized" the bird strike risk associated with OLF Site C. Mr. Merritt also pointed out flaws in the Navy's assessment of the bird strike risk and emphasized that "there are very few places in the United States where this level of threat exists." A copy of Mr. Merritt's letter is attached as Exhibit 7.

122. The Navy states that it will work with the USFWS to manage the bird strike risk.

123. On November 25, 2003, the U.S. Department of Interior, USFWS sent a letter to the Navy stating that Site C posed significant threats to the populations of migratory waterfowl that winter at the Pungo Unit of the Pocosin Lakes NWR. The USFWS states that it has serious concerns about impacts to bird populations and potential for bird strikes associated with activities at Site C, and asserts that the Navy's proposed operations at Site C are not compatible with the area's land uses, particularly the habitat management that the USFWS conducts at the Pocosin Lakes NWR. Based on these concerns, the USFWS asks the Navy to abandon Site C for the OLF and reconsider other options, including Site E in Craven County, North Carolina, and

the former Site F in Carteret County, North Carolina (Open Grounds Farm). The USFWS explained that the Carteret County site posed favorable opportunities to improve the environment with the construction and operation of the OLF, and that the environmental impacts of that site "would be far less than those associated with the development and operation of OLF Site C." Exhibit 4.

124. In October 2003, the Navy set up a MARS at Site C, and intends to run the MARS until the end of the migratory season. On information and belief, the MARS equipment was improperly installed. The radar unit is blocked by the tree line sitting directly in front of it and as a result cannot conduct complete and accurate scans for bird presence and activity.

125. The Final EIS states that operation of the OLF may cause snow geese to flush more frequently on loafing and feeding areas on the Pocosin Lakes NWR. The Navy has not assessed the extent of adverse impacts to snow geese and the NWR that it acknowledges will occur from operation of the OLF.

126. The Navy has not identified the means to mitigate the adverse impacts of the proposed OLF on waterfowl and the NWR as required by the Council on Environmental Quality's ("CEQ") NEPA regulations.

127. The Final EIS states that the Department of the Navy would work with the USFWS and state resource agencies to evaluate site-specific mitigation measures to reduce potential impacts to snow goose populations.

128. The USFWS has stated that the impacts to waterfowl and the NWR from development and operation of the OLF are unacceptable and requested that the Navy seek an alternative site.

129. The WRC also has informed the Department of the Navy that impacts to waterfowl from the development and operation of the Washington County OLF are unacceptable and that the Navy should pursue alternative locations.

#### **Establishment of Core and Mattamuskeet MOAs**

130. On October 6, 2000, the Navy published a Notice of Intent in the Federal Register to prepare an EIS on the proposed designation of special use airspace in eastern North Carolina.

131. The proposed special use airspace would allow high speed ingress/egress from the Atlantic Ocean into existing restricted airspace at a minimum altitude of 3,000 feet and designate additional areas to perform high speed air combat maneuvers and other training.

132. In June 2002, the Navy published an EA for Proposed MOAs in Eastern North Carolina. The EA identifies as the preferred alternative the designation of Core and Mattamuskeet MOAs.

133. Contrary to the notice of intent to prepare an EIS on the proposal to designate special use airspace, the EA states that the Navy will not prepare an EIS on the proposal.

134. The proposed Core MOA extends from 3,000 feet above ground level to 17,999 feet above ground level and extends 35 nautical miles or nearly the entire length of the Cape Lookout National Seashore on Core Banks.

135. The proposed Core MOA would allow high speed, low level military flights from the ocean to other military training areas in coastal North Carolina. An annual total of 1,460 sorties (an average of nearly five per day) would occur in the proposed Core MOA.

136. The proposed Mattamuskeet MOA would overlies approximately 750 square miles of eastern North Carolina including portions of Beaufort, Hyde, Pamlico, Tyrrell, and

Washington Counties. The Mattamuskeet MOA would extend from 3,000 feet above ground level to 17,999 feet above ground level.

137. Military air operations within the Mattamuskeet MOA would involve high speed air combat maneuvers and training activities. An annual total of 2,423 sorties (an average of 9.3 per day) would occur within the Mattamuskeet MOA. The average duration of a sortie is 45 minutes with high speed air combat maneuvers and training activities occurring within the MOA an average of approximately 7 hours per day.

138. The proposed Core and Mattamuskeet MOAs overlie the Cape Lookout National Seashore, the Swanquarter Wilderness Area, and portions of Alligator River NWR, Mattamuskeet NWR, Swanquarter NWR, and Pocosin Lakes NWR.

139. On September 20, 2002, the USFWS advised the Navy, pursuant to the requirements of the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, and Endangered Species Act, that the proposed Mattamuskeet and Core MOAs would adversely impact some of eastern North Carolina's most pristine and sensitive natural resource areas.

140. The USFWS also informed the Navy that the EA on designation of special use airspace is deficient in evaluating the potential impacts of the proposed MOAs on federally-protected species, such as threatened and endangered species and migratory birds.

141. The USFWS requested that the Navy provide details on procedures to minimize the potential for bird/aircraft strike hazards in the proposed MOAs. The Navy did not provide details on procedures to minimize the potential for bird/aircraft strike hazards in the proposed MOAs as requested by the USFWS.

142. The USFWS informed the Navy that the analysis of the impacts of the proposed MOAs on waterfowl is "inadequate and inaccurate."



143. The Navy did not conduct any additional analysis or correct any inaccuracies on the impacts of the proposed MOAs on waterfowl in response to the expert comments from the USFWS.

144. The USFWS requested additional site-specific assessments of the effects of aircraft overflights on avian behavior and physiology. The Navy did not provide any additional site-specific assessments of the effects of aircraft overflights on avian behavior and physiology in response to the request from the USFWS.

145. The USFWS requested analysis of the impacts of forcing general aviation traffic to use the airspace below the 3,000 foot floor of the MOAs. The Navy did not provide any analysis of the impacts of forcing general aviation traffic to use the airspace below the 3,000 foot floor of the MOAs.

146. The USFWS requested additional detailed analysis of the cumulative impacts associated with establishment of the proposed MOAs and the proposed introduction of the Super Hornet and development of an OLF in eastern North Carolina. The Navy did not provide additional detailed analysis of the cumulative impacts associated with establishment of the proposed MOAs and proposed introduction of the Super Hornet and development of an OLF in eastern North Carolina as requested by the USFWS.

147. The USFWS “strongly” requested that the Navy prepare an EIS, as originally proposed by the Navy, to fully evaluate the potential impacts the proposed activities will have on federally-protected wildlife, the natural communities, and the soundscape.

148. On December 10, 2003, the Navy issued a FONSI for the establishment of the Core and Mattamuskeet MOAs. The FONSI concludes establishment and use of the MOAs for

military aircraft training will have no significant effects on the environment and preparation of an EIS is not required. A copy of the FONSI is attached as Exhibit 8.

149. Aircraft based at MCAS Cherry Point and NAS Oceana, including homebased Super Hornets, will conduct military training both in the proposed Core and Mattamuskeet MOAs and at the proposed OLF. The decision to homebase Super Hornets at NAS Oceana and MCAS Cherry Point will substantially increase use of the proposed Mattamuskeet MOA by several hundred sorties annually.

150. The proposal to establish the MOAs addressed in the EA does not include the substantial additional use of the proposed Mattamuskeet MOA resulting from the subsequent decision by the Navy to homebase the Super Hornets at NAS Oceana and MCAS Cherry Point.

151. The Navy has not prepared an EA on a proposal to establish the Core and Mattamuskeet MOAs that includes the increased use of the MOAs resulting from the decision to homebase the Super Hornets.

152. Since the Department of the Navy has not prepared an EA on the establishment of the Core and Mattamuskeet MOAs that assesses the actual level of use and resulting impact, there exists no basis to conclude that the proposal will not significantly affect the environment.

153. The Final EIS on homebasing the Super Hornets concludes the proposed construction and operation of an OLF at Site C would have no cumulative impacts with the proposed designation of the Core MOA solely because of the distance between the proposed OLF and proposed MOA.

154. The Final EIS on homebasing the Super Hornets contains no specific discussion of the cumulative impacts of the proposed Mattamuskeet MOA in combination with the development of an OLF at Site C.

155. The Navy concluded in the FONSI that the combination of the Core and Mattamuskeet MOAs and development of the OLF at Site C will not result in cumulative noise impacts, solely because the noise contours of the proposed OLF fall outside the MOA boundaries.

156. The airstrip of the proposed OLF is less than five miles from the western edge of the proposed Mattamuskeet MOA. Substantial portions of the 2,000 foot elevation holding pattern at the proposed OLF and of the approach and departure tracks from MCAS Cherry Point to the OLF are within the proposed Mattamuskeet MOA.

157. The Navy concluded in the FONSI for the proposed MOAs that the designation of the proposed MOAs will increase the number of overflights, which may result in more frequent flushing of species that are sensitive to aircraft noise. Flushing due to overflights could result in decreased feeding time or an increase in energy expenditure that could contribute to the many causes of stress-induced mortality during migration.

158. The Navy concluded in the ROD that overflights down to 2,000 feet in the holding pattern for the proposed OLF may cause snow geese to flush more frequently from their loafing and feeding sites.

159. Substantial portions of the OLF 2,000 foot holding pattern are within the boundaries of the Mattamuskeet MOA. The Navy's conclusion that the OLF and MOA would have no cumulative impacts is factually incorrect and rebutted by the Navy's own conclusions.

160. Designation of the Mattamuskeet and Core MOAs, increased military training flights within the MOAs from homebasing the Super Hornets in NAS Oceana and MCAS Cherry Point, and development of an OLF at Site C will each result in more overflights of the affected region that will adversely affect wildlife sensitive to such overflights.

161. Neither the EA on the proposed MOAs nor the Final EIS on homebasing the Super Hornets contain a discussion or analysis of the potential cumulative impacts on waterfowl and other wildlife from the combination of designation of the Core and Mattamuskeet MOAs, homebasing the Super Hornets, and development of an OLF at Site C.

162. Neither the EA on the proposed MOAs nor the Final EIS on homebasing the Super Hornets contain a discussion or analysis of the potential cumulative impacts on affected NWRs, National Seashores, or wilderness areas from the combination of designation of the Core and Mattamuskeet MOAs, homebasing the Super Hornets, and development of an OLF at Site C.

163. The ROD states that the severe bird hazards present at OLF Site C will be addressed in part by managing lands surrounding the airstrip to exclude waterfowl by eliminating food sources to force waterfowl to forage in other areas. The EA states that waterfowl will be adversely affected by overflights within the proposed MOAs making these areas less suitable for waterfowl use.

164. Neither the Final EIS nor the EA on the proposed MOAs address or analyze the impacts of establishing the MOAs on the likelihood that waterfowl excluded from the area surrounding the OLF will also be excluded from use of the areas within the MOAs.

#### **FIRST CLAIM FOR RELIEF**

**(NEPA – Failure adequately to assess and disclose environmental impacts in the Final EIS)**

165. Plaintiffs repeat the allegations of paragraphs 1-164 as if set forth in full.

160. NEPA requires, among other things, that federal agencies prepare a detailed EIS on every proposal for major federal action that may “significantly affect the quality of the human environment.” NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C). The EIS must include the specific

information required by the NEPA regulations of the Council on Environmental Quality, which regulations are binding on all federal agencies. 40 C.F.R. Part 1500, et seq.

166. NEPA further requires that every EIS must be prepared with objective good faith and must fully and fairly discuss, among other things, the adverse environmental effects of the proposed action and the alternatives to the proposed action that may avoid or minimize these adverse effects. 42 U.S.C. § 4332(2)(C) and (E).

167. The “effects” that must be discussed in the EIS include, among other considerations, the direct environmental impacts of the proposed action, the indirect effects of the proposed action, and the cumulative impacts of the proposed action.

168. The NEPA regulations define “direct effects” as effects “which are caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a).

169. The NEPA regulations define “indirect effects” as effects “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). Further, indirect effects may include “growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” 40 C.F.R. § 1508.8(b).

170. The NEPA regulations require that EISs include discussion of the means to mitigate adverse environmental impacts. 40 C.F.R. § 1502.16 (h).

171. The NEPA regulations define “cumulative impact” as the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person

undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7.

172. The Final EIS is inadequate under NEPA in at least the following respects:

- a. The Final EIS fails to adequately assess and disclose the direct impacts of the development and operation of the OLF on waterfowl and other wildlife in the vicinity of the OLF.
- b. The Final EIS fails entirely to assess and disclose the direct impacts of the proposed OLF on the adjacent Pocosin Lakes NWR.
- c. The Final EIS fails entirely to assess and disclose the indirect impacts of development and operation of the proposed OLF on internationally important populations of waterfowl species that winter on wildlife refuges and adjacent lands in northeastern North Carolina.
- d. The Navy erroneously concluded in the Final EIS that the development and operation of the OLF in Washington County and the designation and use of the Mattamuskeet and Core MOAs would not have cumulative impacts on the environment of the region.
- e. The Navy failed to address and assess in the Final EIS the cumulative impacts of development of the OLF and designation of the MOAs in violation of NEPA.
- f. In failing to adequately assess and disclose significant environmental impacts of the proposed OLF, the Navy violated its obligation under NEPA to take a hard look at the environmental impacts of the proposed OLF.
- g. The Final EIS does not include discussion of the means to mitigate adverse impacts of the proposed OLF on waterfowl or the nearby NWR.
- h. The Final EIS fails to assess and disclose the indirect and cumulative impacts of the and future uses of the OLF, such as its use by other aircraft currently based at MCAS Cherry

Point and NAS Oceana and the planned introduction of the Joint Strike Fighter and the EA-18G aircraft.

173. If incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts is essential to a reasoned choice among alternatives and the overall cost of obtaining the information are not exorbitant, an agency must include the information in an EIS. 40 C.F.R. § 1502.22(a).

174. The Navy failed to include at least the following information in the Final EIS that is essential to a reasoned choice among alternatives:

a. Bird radar studies during the appropriate season to provide accurate information to appropriately characterize and assess the severity of bird strike hazards at the proposed OLF.

b. The specific elements of the management plan the Navy will employ to address the severe bird strike hazard that exists at Site C in order to assess the extent of impacts to waterfowl and the adjacent NWR.

c. Determination of wetlands at proposed OLF sites using an appropriate methodology to determine the presence and extent of wetlands at alternative OLF sites to provide accurate information on which to base a conclusion on which OLF sites would have greater or less impact on the aquatic environment including wetlands.

175. The Department of the Navy's failure to take a hard look at significant environmental impacts of the proposed action and the failure to obtain information essential to a reasoned decision and to disclose this information in the Final EIS violates NEPA and its implementing regulations and is arbitrary, capricious, and otherwise not in accordance with law.

## **SECOND CLAIM FOR RELIEF**

### **(NEPA – Failure rigorously to examine reasonable alternatives for the homebases for Super Hornets and to the OLF at Site C)**

176. Plaintiffs repeat the allegations of paragraphs 1-175 as if set forth in full.

177. NEPA regulations require that agencies rigorously explore and objectively evaluate all reasonable alternatives to a proposed action. 40 C.F.R. § 1502.14(a). The section discussing alternatives “is the heart of the environmental impact statement.” 40 C.F.R. § 1502.14.

178. The Navy failed to rigorously explore alternative homebasing sites for the introduction of Super Hornet aircraft.

179. The Navy failed to rigorously explore the proposed OLF site in Carteret County.

180. The Navy failed to objectively evaluate alternative OLF sites by applying appropriate and accurate wetland identification methodologies.

181. The Navy failed to rigorously explore and objectively evaluate reasonable alternatives to the proposed OLF and this failure violates NEPA and its implementing regulations, and is arbitrary, capricious, and otherwise contrary to law.

## **THIRD CLAIM FOR RELIEF**

### **(NEPA – Failure to prepare a supplement to the Final EIS after substantial changes to the proposal and in light of new information)**

182. Plaintiffs repeat the allegations of paragraphs 1-181 as if set forth in full.

183. The NEPA regulations require that a federal agency prepare a supplement to the EIS if: 1) the agency makes substantial changes in the proposed action that are relevant to environmental concerns, or 2) there are significant new circumstances or information relevant to



environmental concerns and bearing on the proposed action or its impacts. 40 C.F.R. § 1502.9(c)(1); 23 C.F.R. § 771.130(a).

184. Substantial changes in the proposed action that was the subject of the Final EIS and approved in the ROD, and significant new circumstances or information since the preparation of the Final EIS, require the preparation of a new or supplemental EIS.

185. Substantial changes in the proposed action that require supplementation of the Final EIS include at least the following:

a. The Final EIS revealed for the first time the potential for surge operations at the OLF that consist of a concentrated period of higher operational tempo. Department of the Navy NEPA regulations state that “a substantial change in a continuing activity (such as a substantial change in operational tempo, area of use, or in methodology/equipment) which has the potential for significant environmental impacts should be considered a proposal for new action and be documented accordingly.” 32 C.F.R. 775.6 (c).

b. The Final EIS proposed for the first time fee simple acquisition of 30,000 acres to provide the Navy control within the acquired area to prohibit incompatible development and land uses including management of land to make it less attractive and suitable to migratory waterfowl and other birds.

186. Significant new circumstances or information that require supplementation of the Final EIS includes at least the following:

a. The Final EIS reveals for the first time that aircraft flying on low level holding patterns at OLF on approach and/or departure from the OLF will routinely fly directly over Pocosin Lakes NWR.

b. The Final EIS reveals for the first time that aircraft flying to and from MCAS Cherry Point to the OLF will fly over the Pocosin Lakes NWR.

c. Since the publication of the Final EIS, the Office of the Secretary, United States Department of the Interior, has informed the Navy that the impacts of the proposed OLF to waterfowl wintering habitat and operations of the Pocosin Lakes NWR are underestimated and inadequately addressed in the Final EIS. Specifically, the Department of the Interior 1) states that the Final EIS does not use adequate and available information to appropriately analyze and assess noise impacts to waterfowl and wildlife on the NWR; 2) disputes the Navy's conclusion in the Final EIS that the OLF is a "compatible land use" with the NWR and adjoining private lands managed for conservation and wildlife; and 3) requests that the Navy consider an alternative site.

d. On December 10, 2003, the Navy issued a FONSI on designation of two MOAs in eastern North Carolina that will have adverse impacts on birds, wildlife, and NWRs similar to the adverse impacts of the OLF.

187. Based on the above substantial changes in the proposed action and the significant new information since the issuance of the Final EIS, the Navy's failure to prepare a Supplement to the EIS violates NEPA and its implementing regulations, and is arbitrary and capricious and otherwise not in accordance with law.

#### **FOURTH CLAIM FOR RELIEF**

##### **(NEPA – Failure to prepare EIS on establishment of MOAs)**

188. Plaintiffs repeat the allegations of paragraphs 1-186 as if set forth in full.

189. NEPA requires that federal agencies prepare a detailed EIS of every proposal for a major federal action that may "significantly affect the quality of the human environment." 42 U.S.C. § 4332(2)(C).

190. Factors an agency must consider in determining whether a proposal significantly affects the environment include unique characteristics of the geographic area including proximity to park lands, wetlands, or ecologically critical areas; the degree to which the action may adversely affect an endangered or threatened species or its critical habitat; the degree to which the possible effects on the environment are highly uncertain; and the degree to which the effects on the environment are controversial. 40 C.F.R. § 1508.27(b).

191. The Navy erroneously concluded that the impacts of the proposed MOAs on park lands, wetlands, and ecologically critical areas are not significant.

192. The Navy erroneously concluded that the proposed MOAs would have no affect on endangered or threatened species.

193. To the extent the Navy has concluded potential effects of the proposed OLF on waterfowl, NWRs, and other environmental resources are highly uncertain, an EIS is required.

194. Effects on the environment of proposed designation of the MOAs are controversial and require preparation of an EIS.

195. The Department of the Navy's decision that the proposed MOAs have no significant effects on the environment and the decision not to prepare an EIS of the proposals violates NEPA and its implementing regulations and is arbitrary, capricious, and otherwise not in accordance with law.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs respectfully request that this Court:

A. Issue a declaratory judgment stating that the defendants have violated NEPA and its implementing regulations in the respects set forth above;

B. Issue an injunction requiring the defendants to comply with the provisions of NEPA and its implementing regulations as described above;

C. Order that the Department of the Navy's ROD dated September 3, 2003 for the Final EIS be vacated, set aside, or rescinded;


D. Order that the Department of the Navy's FONSI dated December 10, 2003 be vacated, set aside, or rescinded;

E. Issue an injunction prohibiting the defendants from taking any further action related to land acquisition, site preparation, design, construction or any other action related to implementation of homebasing Alternative 6 and OLF Alternative Site C until they have complied with all the requirements of NEPA and its implementing regulations;

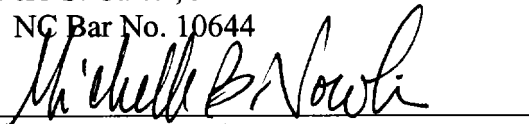
F. Allow plaintiffs to recover all costs of this action, including reasonable attorneys' fees; and

G. Grant plaintiffs such further and additional relief as the Court deems necessary and appropriate.

Respectfully submitted this 9th day of January, 2004.

  
Derb S. Carter, Jr.

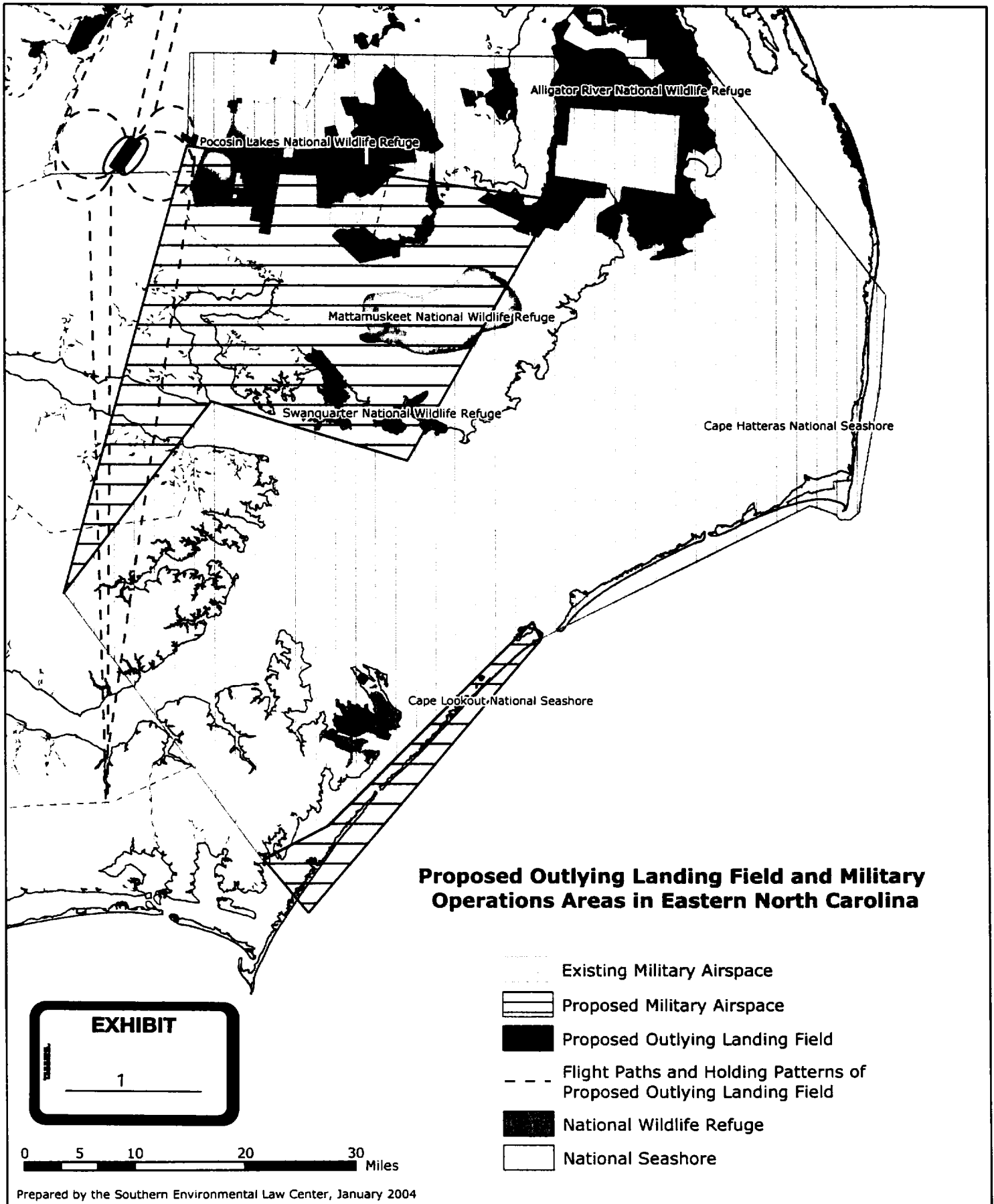
NC Bar No. 10644

  
Michelle B. Nowlin

NC Bar No. 19199

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# **EXHIBITS**





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

January 6, 2004

Ms. Michelle B. Nowlin  
Senior Attorney  
Southern Environmental Law Center  
200 West Franklin Street, Suite 330  
Chapel Hill, North Carolina 27516-2520

Dear Ms. Nowlin:

This responds to your December 5, 2003 Freedom of Information Act (FOIA) request in which you requested all memoranda, correspondence, electronic mail, etc. pertaining to the U.S. Fish and Wildlife Service's (Service) assessment of the U.S. Navy's proposal to introduce the F/A-18 E/F (Super Hornet) to the East Coast of the United States.

In accordance with 43 CFR 2, attached is all pertinent information that we found in our files. We have withheld no information and any fee that may be associated with your request has been waived.

If you have any questions or need additional information, please contact Mr. John Hammond of this office at (919) 856-4520 extension 28, or via email at [John\\_Hammond@fws.gov](mailto:John_Hammond@fws.gov).

Sincerely,

Dr. Garland B. Pardue  
Ecological Services Supervisor

### Attachments

Index of Responsive Documents  
Documents

cc (w/o attachments): USFWS, Atlanta, GA (Wanda Purdy)

EXHIBIT

2

In Reply Refer To:  
FWS/R4/ES

Memorandum

To: Office of Environmental Policy and Compliance, Washington, D.C. Attention:  
Terrence Martin

From: Regional Director, FWS, Southeast Region, Atlanta, GA

Subject: Final Environmental Impact Statement for the Introduction of F/A- 1 8 E/F (Super  
Hornet) Aircraft to the East Coast of the United States, Department of the Navy,  
July 2003 (ER 02/0706)

The Fish and Wildlife Service has reviewed the subject Final Environmental Impact Statement in accordance with Mr. Martin's Environmental Review Transmittal. We have very serious concerns with the preferred alternative, and believe impacts to National Wildlife Refuge-related waterfowl wintering habitat, and certain refuge operations are unacceptable. We would accept either of several alternatives not currently preferred by the Navy, and offer suggestions for a particular alternative.

We appreciate the opportunity to provide the attached comments. If you have any questions, please contact Kevin Moody, Regional Environmental Coordinator, at 404/679-7089.

Attachment

KMoody:

P:\Habitat Conservation\



Re: Final Environmental Impact Statement for the Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States, Department of the Navy, July 2003.

The U.S. Fish and Wildlife Service (Service) has reviewed the Department of the Navy's (Navy) Final Environmental Impact Statement (FEIS) for the Introduction of the F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States, dated July 2003. The task of locating new homebasing and practice facilities for the Super Hornet aircraft is a challenge, and your staff has done a good job of seeking public input. We appreciate the hard work that has gone into preparation of the FEIS, but we bring the Navy's attention to three points which we believe need clarification. We are requesting these items be addressed and corrected in a supplemental EIS to give the public a better understanding of the alternatives analysis. Our comments are submitted pursuant to, and in accordance with, provisions of the Fish and Wildlife Coordination Act, as amended, (16 U.S.C. § 661 et seq.), the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.), the Sikes Act, as amended (16 U.S.C. § 670a et seq.), and the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.).

First, page 2-105's summary that birds and wildlife at the Pocosin Lakes National Wildlife Refuge (PLNWR) "would not be affected" by operations at Outlying Landing Field (OLF) Site C is far too conclusive. Impacts from aircraft noise are actually expected, and the magnitude of those impacts needs to be better evaluated. The preferred OLF alternative Site C, located in Washington County, lies just west of the 12,000-acre Pungo Unit and the 600-acre B Canal Tract of PLNWR. Most of the adjacent lands in the OLF Site C area of influence are private agricultural lands that serve as important foraging areas for migratory birds. The Pungo Unit of PLNWR was established specifically as a waterfowl sanctuary, and 100,000 birds annually winter on the unit. Average peak numbers of tundra swans on the Pungo Unit are approximately 25,000, and snow goose numbers hit an all-time high of 65,000 this past year. Most of these birds regularly fly out to feed in the private agricultural fields to the west of the Pungo Unit, in the vicinity of OLF site C. These flights occur both during the day and at night and are unpredictable. In addition to wintering waterfowl, the Pungo Unit hosts thousands of other migrant and resident birds throughout the year, many of which also feed in the surrounding agricultural fields.

Please reconsider the conclusion that birds and wildlife at PLNWR "would not be affected" by operation at OLF Site C. In particular, we encourage that the rich waterfowl survey database we have acquired over the years of operating PLNWR be used; we believe it puts the limited data from last year's observations in their appropriate context (see the attached technical assistance comments for the Navy's consideration). Use of our larger database would improve the accuracy and precision of noise impact modeling. This is particularly important given the addition of holding patterns and approach path locations, both of which are now shown to occur with 0.2 miles of the PLNWR boundary (a change from the DEIS to the FEIS). The FEIS indicates that, although these flight tracks are represented by single lines on the map, a band would be a better

representation since many factors affect the actual flight path. This seems to indicate that approaching aircraft and aircraft in the holding pattern will likely routinely fly over PLNWR.

Second, the Service is very concerned with the conclusion that OLF Site C offers “compatible landuses” (page 2-75). The Service has maintained since the early stages of this project that the wildlife management landuses adjacent to refuges and other areas working to attract migratory birds and other wildlife are not compatible with increased low-level air traffic. The site includes parcels that our Department has worked with private landowners to manage for conservation and wildlife. We also remain concerned that this generalization does not address our previously stated concern about the impacts that operations at OLF Site C will have on visitation at PLNWR. Visitors come to refuges to enjoy wildlife-dependent recreational activities such as hunting and bird and bear watching. Please consider a more detailed analysis of this impact in a supplement, particularly the peak noise level impacts (which were not a focus in the existing analysis which used averages).

Finally, we respectfully encourage additional options be evaluated. Specifically, an option that should be considered in more detail is the Carteret County OLF siting alternative evaluated in the DEIS. This site was dropped from the FEIS because the Navy determined operational constraints on other Department of Defense facilities in the region. We recommend the Carteret County site be reassessed with consideration of the following positive attributes: (1) the Open Grounds Farm parcel within the county has the acreage needed for the OLF as defined in the FEIS; (2) environmental organizations in North Carolina have advocated the Open Grounds Farm site since 1994 (see the enclosed letter from the North Carolina Coastal Federation to Naval Facilities Engineering Command), and the Navy would be welcomed at this location due to the opportunities for environmental restoration; (3) purchase from a single corporate farming operation would likely be less expensive based on land costs and fewer number of homes and families to displace; and, (4) the wetland restoration opportunities on this tract are real. Restoring wetland hydrology in conjunction with OLF construction would help cure long recognized water quality problems in the Neuse River affecting shellfish populations and also protect water quality in Core Sound. Wetland restoration of a type which would not attract waterfowl would also improve opportunities for recreational and commercial fishing. The Navy would get a substantial amount of praise and positive feedback for working to restore water quality in the Neuse River (one of North Carolina’s highest priority impaired waterbodies). While that site would not be free of environmental impacts (including those to birds as referenced in our February 2002 comments on the project), it is our opinion that these impacts would be far less than those associated with development and operation of OLF site C.

We encourage the further consideration of the Carteret County option which we believe to have some significant advantages under your site evaluation criteria. If the air traffic constraints on adjacent Marine and Navy facilities can be managed (an issue on which we will defer to your staff’s expertise), this site may well offer the “win-win” solutions so often sought but rarely obtained. Please re-consider this site in a supplemental EIS. This document would also give the Navy the opportunity to address the concerns we outlined and other siting options (OLF Oak Grove, in Jones County, and OLF Atlantic, in Carteret County, or constructing parallel runways

to existing facilities) discussed in the attached technical assistance comments for your consideration.

Again, the Service recognizes the seriousness and magnitude of your task in locating homebasing and OLF facilities in the mid-Atlantic, and we appreciate the opportunity to comment on this proposed action. We also appreciate the work that has been done to date, and we encourage the further consideration of the options described above which we believe to have some significant advantages under your site evaluation criteria. If you have any questions or comments, please contact Dr. Garland Pardue of the Service's Raleigh Office at 919/856-4520 x.11.

Enclosures (2).

## U.S. Fish and Wildlife Service

Review Comments on Final Environmental Impact Statement for the Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States, Department of the Navy, July 2003.

The Service provided scoping comments for the Navy's EIS in a letter dated February 8, 2002, and the U.S. Department of the Interior provided comments on the Draft Environmental Impact Statement (DEIS) in a letter dated October 11, 2002. In a letter dated June 11, 2003, the Service satisfied the requirements of consultation with the Navy under section 7(a)(2) of the Endangered Species Act for federally-listed threatened and endangered species for the preferred OLF siting alternatives identified in the DEIS (i.e., OLF Sites C and E). We refer to those comments for additional information

The Navy is proposing to provide facilities and functions to support the homebasing and operation of the new F/A-18 E/F (Super Hornet) aircraft which includes the introduction of 10 Super Hornet fleet squadrons (120 aircraft) and the Fleet Replacement Squadron (FRS) (24 aircraft). The Navy's FEIS evaluates eight siting alternatives where all squadrons or a portion of the squadrons and the FRS are located at Naval Air Station (NAS) Oceana, Virginia, Marine Corps Air Station (MCAS) Beaufort, South Carolina, and/or MCAS Cherry Point, North Carolina. An Outlying Landing Field (OLF) would be constructed to support carrier-landing practices of the Super Hornet squadrons. Each airfield, including the primary runway, ancillary facilities, and clear zones, will occupy approximately a 2,000-acre site. Each candidate site encompasses the proposed airfield and noise contour through the 60-decibel day-night average sound level (DNL). The Navy is proposing to acquire and/or control development on lands within the 60 DNL noise contour for uses compatible with aircraft operations. The Navy's FEIS evaluates six OLF siting alternatives – five in Perquimans, Bertie, Washington, Hyde, and Craven counties, in North Carolina, and one in Burke County, Georgia. The Navy has two preferred homebasing alternatives: (1) ALT 4A – homebasing six fleet squadrons and the FRS at NAS Oceana and four fleet squadrons at MCAS Cherry Point, and develop a new OLF between the two sites; and, (2) ALT 6 – homebasing eight Super Hornet fleet squadrons and the FRS at NAS Oceana and two fleet squadrons at MCAS Cherry Point, and develop a new OLF between the two sites. The Navy's preferred OLF siting alternative under either preferred homebasing alternative is Site C in Washington County, North Carolina.

Service biologists with management responsibilities for migratory birds, national wildlife refuge lands and waters, and endangered species have reviewed the FEIS. The following technical assistance comments are offered for the Navy's consideration under the National Environmental Policy Act (42 U.S.C. § 4321 et seq.), the Fish and Wildlife Coordination Act, as amended, (16 U.S.C. § 661 et seq.), the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.), the Sikes Act, as amended (16 U.S.C. § 670a et seq.), the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and the Endangered Species Act of 1973, as amended (16 U.S.C. §

1531 et seq.).

### Impacts on Waterfowl Resources

The construction and operation of an OLF at Site C, and the associated bird reduction actions (e.g., habitat alteration, lethal and nonlethal control of avian species), would have a significant negative impact on waterfowl wintering at Pocosin Lakes National Wildlife Refuge (PLNWR) and potentially any other siting alternative near a National Wildlife Refuge, and could lead to a long term decline in tundra swan, snow goose, and Canada goose concentrations at the refuge. These species begin arriving at PLNWR between October and November. They roost and loaf on Pungo Lake and feed in the adjacent agricultural fields. The following table shows peak count numbers and use-days for swans and snow geese. A use-day is equivalent to one bird at the refuge for one day. It is calculated by taking the average of all counts during a period (a month in this case) and multiplying by the number of days in the period. This often provides a number for comparison that is more representative of bird population trends than peak number, which is simply the highest count made during the period. Use-days for the years shown in the table are represented by the use-days for the month in which the greatest number of birds was present on the refuge.

Pungo Unit Only	PEAK NUMBERS		USE DAYS	
	Swans	Snow Geese	Swans	Snow Geese
1996-97	32,000	30,000	2,087,401	1,548,799
1997-98	16,355	38,520	659,656	1,602,567
1998-99	25,000	43,000	818,669	2,017,493
1999-00	23,930	45,000	1,451,992	1,992,877
2000-01	28,062	46,000	592,300	1,579,964
2001-02	19,985	44,000	359,950	1,341,091
2002-03	5,470	65,000	129,220	1,321,375
2002-03 Pungo Unit Only				
October	0	0	0	0
November	3,965	29,050	84,468	411,900
December	3,111	47,500	62,264	1,005,950
January	5,470	65,000	108,097	1,321,375
February	4,615	50,000	129,220	854,000
2002-03 Expanded Survey Area*				
October	0	0	0	0
November	6,446	29,050	114,750	175,000
December	13,324	47,500	330,476	1,005,950
January	7,803	13,500	120,946	387,500
February	9,146	50,000	256,088	854,000

\*The expanded survey area includes the Pungo Unit, surrounding fields, Lake Phelps, and New Lake.

In the last 18 years, tundra swan peak numbers have ranged from a low of 5,470 this past year (2002-03) to over 34,000 in 1989-90. Prior to 2002-03, the lowest peak number was 16,355. The average peak number during the 18-year period is 24,960. Approximately 80% of the Atlantic Flyway population of tundra swans winter in eastern North Carolina and this 18-year average represents about 25% of the wintering flock. This means that the swans wintering at PLNWR are of national significance. The table shows that swan use-days have been variable in recent years. The high for the 18-year period occurred in 1996-97 (use-days were between one and two million during the 11 years prior to this high year). This recent variability is likely due to fluctuations in overall population size, forage availability as compared to other eastern North Carolina areas (amount of waste grain, winter wheat browse, and other crops), and other factors. Local monitoring indicates that swans wintering in eastern North Carolina tend to move frequently between important habitat areas such as PLNWR and Mattamuskeet National Wildlife Refuge.

For snow geese, the table shows that peak numbers have increased in recent years while use-days have declined slightly. Although use-days would indicate snow goose use of the refuge and surrounding areas has been declining slightly or is somewhat stable, peak numbers and refuge staff observations from year to year indicate that use has been increasing with the increase in the overall population size. These long term data, collected by professional biologists working lands adjacent to proposed OLF site C, should be used for a more accurate and precise modeling effort. The range of values from these data can be used in a sensitivity analysis of model inputs to put the limited data from last year into better context.

Disturbance and habitat loss associated with the construction and operation of the OLF and bird reduction actions would likely lead to a decline in the number of wintering swans and geese at PLNWR. The primary disturbance from aircraft is noise. Habitat loss would occur on approximately 30,000 acres from the conversion of cropland to the runway and associated facilities, and from the conversion of existing corn, soybean, and winter wheat crops to crops that are unattractive to waterfowl (e.g., cotton) or to fallow fields (which may also be unattractive to waterfowl). The avian harassment and lethal reduction actions referred to in the FEIS, taken in such close proximity to the refuge, would likely contribute to wintering waterfowl population decline in the area, as well.

One change from the DEIS to the FEIS is the addition of holding patterns and approach path locations, both of which are now shown to occur with 0.2 miles of the PLNWR boundary. The FEIS indicates that, although these flight tracks are represented by single lines on the map, a band would be a better representation since many factors affect the actual flight path. This seems to indicate that approaching aircraft and aircraft in the holding pattern will likely routinely fly over PLNWR. The FEIS states that flight operations above 3,000 feet do not generally contribute to the noise environment, but it also states that aircraft in the holding pattern will be between 2,000 and 3,000 feet.



The FEIS should do more to adequately describe, and assess, the probable impacts of OLF related noise increases on and around PLNWR. Sound intensity is doubled with every increase of 3 dB (e.g., 53 dB is perceived as twice as loud as 50 dB). The FEIS primarily uses DNL in assessing noise impacts because it is considered a good measure of "community annoyance" with aircraft noise. This 24-hour average number, however, is not likely a good measure for assessing impacts on wildlife. The limited SEL (a measure of the noise energy from a single noise event) information indicates that significant increases will occur irregularly at PLNWR. According to the FEIS, the DNL for PLNWR would be 49 dB (FEIS Table 12-4), but the highest SEL at the refuge would be 93 dB (and modeled at 79 dB during representative flight operations) (FEIS page 12-122). Using the suggested average (DNL) noise level for the proposed OLF Site C (40-50 dB, which is considered typical for rural areas in the FEIS), the increase in noise levels during single events will be between 29 to 53 dB. If ambient noise levels are lower than the average prior to the noise event, the increase will be even greater.

Furthermore, the FEIS should go further to adequately describe, and assess, the probable impacts of OLF related noise increases on waterfowl resources wintering on and around PLNWR. Although the literature review in the FEIS documents the startle response to noise (that is normal for many wildlife species) and that wood ducks and snow geese seem to be easily disturbed by aircraft noise, these responses have physiological effects that are not considered. These bioenergetic effects may impact survivability through the winter and return migration to nesting grounds. The expected disturbance from an OLF may have detrimental impacts on waterfowl that reach well beyond the local area.

The FEIS suggests that habituation and acclimation to noise will normally occur in wildlife species and even goes so far as to suggest that the presence of large concentrations of snow geese on PLNWR, with restricted use air space R-5314 over the refuge, shows that some habituation has already occurred in this area. However, while R-5314 is situated over PLNWR, it is predominately north of the Pungo Unit (where the refuge's significant waterfowl habitat is located). Only a small section of the northern edge of the Pungo Unit lies under the extreme southwest corner of R-5314. Most of the refuge that lies under R-5314 is pocosin habitat, which is unattractive to most waterfowl species. In addition, the section of R-5314 that occurs over PLNWR includes airspace from 1,000' AGL to 6,000' MSL and does not go to the surface as the FEIS implies. This fact alone makes the FEIS assumption that waterfowl habituation to low-level flight operations has occurred at PLNWR quite tenuous. The observations of refuge biologists also contradict this assumption.

### **Impacts on Refuge Visitors**

The FEIS should be augmented to address the impacts, including the socioeconomic effects, that construction and operation of the OLF Site C will have on visitation at PLNWR. Visitors come to the refuge to enjoy wildlife-dependent recreational activities such as hunting and bird and bear watching. These activities require quiet to enjoy. The FEIS indicates that people living in areas of less than 65db DNL consider a 3 dB increase in DNL significant. The FEIS predicts no significant increase in DNL for the PLNWR. However, it seems likely that visitors participating

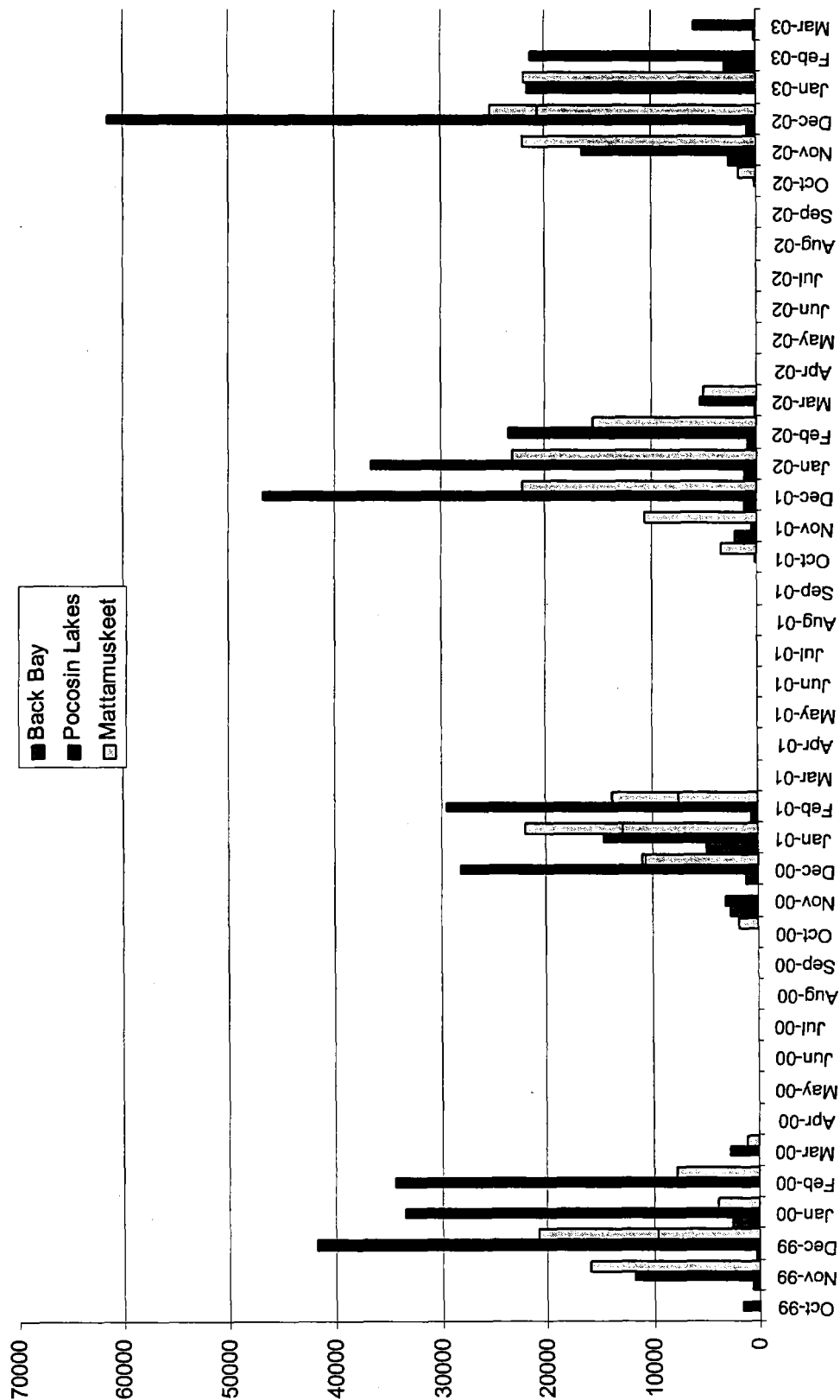
in hunting, wildlife observation, and other wildlife-dependent recreational activities, that experience the predicted sudden increases in SEL described earlier at 79 to 93db, will consider the intrusion much more than "significant." Although several of these noise events occurring anytime while participating in these recreational activities could cause one to pursue the activity elsewhere, the timing of the noise event will probably also affect the level of annoyance. For instance, if the noise occurs while a hunter is listening to an approaching deer, or just as a bird watcher has pinpointed the call of a new species for his/her life list, the level of annoyance will be profound. The FEIS indicates that an average of two 45-minute flight operational periods will occur per day, but these periods will be highly irregular; approximately 25% of the flights can be expected at night. The FEIS indicates there will be periods of intense flight training and periods with little to no flight training, but when these periods will occur cannot be specified. With the overall predicted number of annual flight operational periods, it is likely that within a few years enough current visitors to PLNWR could be negatively impacted by aircraft SEL events to cause a decline in refuge visitation.

#### **Bird Aircraft Strike Hazard (BASH) / Bird Avoidance Model (BAM)**

The FEIS interpretation of the BAM data analysis showing that average annual BASH risk levels at proposed OLF Sites A, B, and C are similar to those currently being managed at NAS Oceana, NALF Fentress, and the Dare County Bombing Range appears misleading. The Dare County Bombing Range is nearly surrounded by the Alligator River National Wildlife Refuge, but the refuge habitat in proximity to the Bombing Range is pocosin, which is not attractive to most waterfowl species. It is likely that the bird mass index that characterizes a Severe classification for the Bombing Range is facilitated by avian use of surrounding refuge habitat, but is not of the same species' composition as is found at PLNWR. Furthermore, as shown in Figure 12-24, the BAM analysis shows that the nighttime fall and winter risk at Site C (like Site D) is higher than NALF Fentress and NAS Oceana. While similarities in seasonal risk levels (that support the stated conclusions about comparable risk at current military sites) are discussed in the FEIS, these differences are not. In addition, although NALF Fentress is located in proximity to Back Bay National Wildlife Refuge, the species' composition and the numbers of swans and geese using this refuge is drastically different from that of PLNWR. The chart below provides a comparison of the waterfowl count data from PLNWR, Mattamuskeet National Wildlife Refuge, and Back Bay National Wildlife Refuge.



Combined Tundra Swan, Snow Goose and Canada Goose Survey Numbers For Back Bay NWR,  
Mattamuskeet NWR and Pocosin Lakes NWR 1999-2002



The BAM data appear to miss site-specific differences in risk. To show these differences, site-specific data, such as data collected using the Mobile Avian Radar System (MARS), are needed. We are, however, concerned about the FEIS's reliance on the very limited MARS data collected at PLNWR and the conclusions that were reached. The radar was installed in mid-February and data were collected in 12 sessions totaling 240 hours (or 10 days' worth) over a 28-day period. Our observations and count data show that the majority of the swans and snow geese had already begun their return migration and had left the area by the time the radar was installed.

Peak Bird Numbers on the Pungo Unit (PLNWR)		
	Swans	Snow Geese
February 5, 2003 count	4,615	11,000
March 5, 2003 count	145	0
Annual peak count from earlier in the season	5,470	65,000

Figure 12-26 in the FEIS supports this by showing high concentrations of birds when the radar was first installed followed by significantly lower numbers for the majority of the 28-day period. The FEIS indicates that the radar data shows that there are comparatively long periods of time when BASH risk is relatively low. This is true for periods when the swans and geese have migrated out of the area, but information from when the birds are present, particularly at peak concentrations, is still needed to perform a more accurate risk analysis. As already shown, bird numbers at the refuge can vary from year to year and this year tundra swans numbers were well below the long-term average. Bird numbers also vary within the wintering season. This information highlights the need for data collection over a much longer period than was done for the FEIS to get a true picture of the current bird activity near OLF Site C.

Although the FEIS concludes that the high strike risk periods are minimal compared to low risk periods, this conclusion is based on extremely limited data. The fact that elevated risk periods were detected after most of the birds had left the area would seem to indicate that, at a minimum, additional study is needed, at least modeling with the longer-term bird survey data for the area that is already available. From a broader perspective, the fact that a BASH analysis and BASH reduction plan is required for this site points out the conflicting missions of two federal agencies that would be located side by side if the OLF is constructed at Site C. To meet its waterfowl objectives, PLNWR annually makes available to wintering waterfowl over 200 acres of corn at an average of approximately 140 bushels/acre, the waste grain from an additional 400 acres of harvested corn, and about 150 to 200 acres of winter wheat. With an OLF, another federal agency would be actively managing to repel birds within five miles of this operation.

#### **Impacts on Partners/Private Lands**

In addition to refuge impacts, there are nearby private lands managed, restored, and protected by cooperative agreements and long term and perpetual conservation easements for the protection and conservation of wildlife and practices that conserve soil, water, native vegetation and other natural resources. Construction and operation of OLF Site C would jeopardize or eliminate

conservation partnerships with private landowners currently contributing 578 acres of habitat to PLNWR's waterfowl management goals. These partnerships are being implemented through the Farm Bill, the Service's Partners for Fish and Wildlife Program, and programs offered by the State of North Carolina. In addition, a cooperative program among the Service, the North Carolina Wildlife Resources Commission, and private landowners provides assistance for the lease and enhancement of protected foraging and loafing areas for wintering Canada geese and other waterfowl. Traditionally, three to four areas are leased each year to provide an additional 3,000-3,500 acres of adequate habitat. One such site, the Bell Farms tract, comprises 1,400 acres of habitat, and in 2002-03, peak numbers of tundra swans and snow geese on this tract totaled 5,300 and 8,000, respectively. Furthermore, the Red Wolf Recovery Program currently maintains verbal agreements for land access with 27 different landowners whose land totals 73,600 acres within and adjacent to the proposed OLF Site C in Washington County. These agreements provide vital access to the Red Wolf Recovery Program for effective monitoring and management of red wolves and the coyotes that threaten red wolves. Construction and operation of OLF Site C would likely negatively affect our ability to monitor and manage the red wolf on these private lands and the property of the OLF.

### **Endangered Species**

In our June 11, 2003, letter, our agency conveyed concurrence, in accordance with section 7(a)(2) of the Endangered Species Act, with the Navy's "not likely to adversely affect" determination for federally-listed species in the vicinity of OLF alternatives Site C and E. The following comments are intended to clarify what our concurrence means and reiterate important concerns regarding the potential adverse effects of OLF Site C construction and operation on federally-listed species, specifically the red wolf and red wolf recovery.

Section 7(a)(1) of the Endangered Species Act directs all federal action agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of federally-listed endangered and threatened species. Furthermore, federal action agencies are obligated, when section 7(a)(2) requirements of the Act have been satisfied, to consider reinitiation of consultation with the Service if: (1) new information reveals impacts of an action may affect listed species or critical habitat in a manner not previously considered; (2) an action is subsequently modified in a manner that was not considered during the project review; or, (3) a new species is listed or critical habitat determined that may be affected by the proposed action.

With regard specifically to the red wolf, we believe additional clarification is needed on the interpretation of the written experimental population rule (reference 51 FR 41790; 56 FR 56325; and, 60 FR 18940). This rule is meant to provide maximum flexibility in working to address the needs of people and red wolves in an effective and flexible manner. We believe the experimental rule does not give the Navy license to adversely impact red wolves or neglect coordination responsibilities under the Endangered Species Act and the Sikes Act. We believe that a failure by the Navy to commit ample resources to addressing red wolf concerns via planning, funds, access, air space management and/or effective resource management in association with the

construction and operation of OLF Site C could potentially preclude red wolf recovery throughout the five county red wolf experimental population area. Our specific concerns about the potential adverse effects to the red wolf should be discussed in more detail. Biologists managing this species have reviewed the project, and their concerns are on record in our Raleigh Field Office; we encourage additional dialog on their concerns in order to more fully address the species.

## **Alternatives**

The task of locating a new homebasing and practice facilities for the Super Hornet aircraft is a challenge and your staff has done a good job of seeking public input on options. Several options should be evaluated in more detail, however. For example, we recommend OLF Site E be reevaluated and the potential for mitigation of impacts to, and restoration of, low quality wetlands be considered. The land of OLF Site E is predominately silviculture and clear cut timber with substantial environmental restoration opportunities. This alternative would also have minimal impact on concentrations of migratory waterfowl. Another option that should be considered in more detail is the Carteret County OLF siting alternative evaluated in the DEIS. This site was dropped from the FEIS because the Navy determined "significant operational constraints" on other Department of Defense facilities in the region. We recommend the Carteret County site be reassessed in a supplemental EIS with consideration of the following positive attributes: (1) the Open Grounds Farm parcel within the county has the acreage needed for the OLF as defined in the FEIS; (2) environmental organizations in North Carolina have advocated the Open Grounds Farm site since 1994 (reference the letter, dated August 12, 1994, from the North Carolina Coastal Federation to Naval Facilities Engineering Command), and the Navy would be welcomed at this location due to the opportunities for environmental restoration; (3) purchase from a single corporate farming operation would likely be less expensive based on land costs and far fewer number of homes and families to displace; and, (4) the wetland restoration opportunities on this tract are real. Restoring wetland hydrology in conjunction with OLF construction would help cure long recognized water quality problems in the Neuse River affecting shellfish populations and also protect water quality in Core Sound. Wetland restoration of a type which would not attract waterfowl would also improve opportunities for recreational and commercial fishing. The Navy would get a substantial amount of praise and positive feedback for working to restore water quality in the Neuse River (one of North Carolina's highest priority impaired waterbodies). Lastly, we recommend consideration and further evaluation of modifying and using existing facilities, such as OLF Oak Grove, in Jones County, and OLF Atlantic, in Carteret County, or constructing parallel runways to existing facilities (e.g., MCAS Cherry Point) to minimize adverse impacts to natural resources and other environmental effects.



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Raleigh Field Office  
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Raleigh, North Carolina 27636-3726

September 20, 2002

Commander, Atlantic Division  
Attn: Ms. Kelly Knight (BD33)  
1510 Gilbert Street  
Norfolk, Virginia 23511-2699

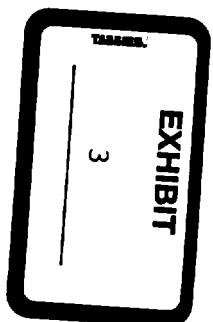
Dear Ms. Knight:

The U.S. Fish and Wildlife Service (Service) has reviewed the Department of the Navy, U.S. Marine Corps' Environmental Assessment (EA) for Proposed Military Operations Areas in Eastern North Carolina, dated June 2002. Our comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.)

The U.S. Marine Corps (USMC) proposes to create two independent Military Operations Areas (MOAs) in eastern North Carolina. One MOA would allow for the high-speed ingress and egress of aircraft along the coastline, and the other would meet the need for additional aerial training space. The EA addresses the potential environmental effects of five alternatives, in addition to the No Action Alternative. These alternatives include the Core MOA, Cherry MOA, and Mattamuskeet MOA, and combinations of the Core and Cherry MOAs and Core and Mattamuskeet MOAs.

The proposed Core MOA is the only MOA identified that would satisfy the requirement for tactical jet traffic to transit across the coastline and enter the existing Pamlico B MOA or either of the proposed Mattamuskeet or Cherry MOAs. The selection of either the Mattamuskeet MOA or Cherry MOA would create additional special use airspace desired to meet the training needs of USMC aviators. The proposed Core MOA is located in Carteret County over a significant portion of the Cape Lookout National Seashore. The proposed Cherry MOA is located over portions of Beaufort, Craven, Hyde, Pamlico and Washington counties. The proposed Mattamuskeet MOA overlies portions of Beaufort, Hyde, Pamlico, Tyrrell, and Washington counties. The USMC has selected the Core and Mattamuskeet MOAs as their preferred alternative.

There is a long history and controversy surrounding airspace use in eastern North Carolina; elements of the proposed action date back to the 1980s. The preferred Core and Mattamuskeet MOAs alternative overlies some of eastern North Carolina's most pristine and sensitive natural resource areas, including the Cape Hatteras National Seashore, the Swanquarter National Wilderness Area, and portions of Alligator River National Wildlife Refuge (NWR),



Mattamuskeet NWR, Swanquarter NWR and Pocosin Lakes NWR. Each of these holdings is federally-mandated with a mission to conserve and protect natural resources for the continuing benefit of future generations. In past consultations, the Service has attempted to provide the Navy with comments and recommendations that confirm the mission of the Service and the Department of the Interior. However, our recommendations have been and will continue to be adjusted to reflect the complexity of the area and changes that have occurred over the years in eastern North Carolina. For these reasons, it is pertinent that the potential impacts of the proposed actions are completely and thoroughly evaluated.

The Service was dismayed by the USMC's issuance of an EA for the proposed activities and the inclusion of the Mattamuskeet MOA as the preferred alternative. During the scoping meeting in Manteo, North Carolina, on October 30, 2000, the USMC did not reveal, nor did any of the Service representatives present get the impression, that the Mattamuskeet MOA was being seriously considered as a preferred alternative. We also were confused by the manner in which the USMC has handled the preparation of the environmental review documentation for the proposed activities. Specifically, the Department of the Navy (Navy) issued a Notice of Intent to prepare an Environmental Impact Statement (EIS) for the proposed action on October 6, 2000 (65 *Federal Register* 59829). On February 21, 2001, a briefing to the National Park Service (NPS), with representatives present from the Service, USMC, Navy, and TAMS Consultants, Inc., was held in Beaufort, North Carolina, to discuss the proposed actions. However, the preparation of an EA was not presented, nor discussed. In fact, you stated in that briefing "that agencies/public would be afforded a greater opportunity to understand and review the proposal if an EIS was prepared." We could not have agreed more with this statement.

In general, the EA is effective in describing the alternatives and explaining the technical information needed to understand the effects of training activities on the environment. However, the EA is deficient in evaluating the potential impacts of the proposed action on federally-protected species, such as threatened and endangered species and migratory birds, and the natural soundscape of eastern North Carolina. The following comments reflect our evaluation of the EA.

**Front Cover of EA** – The map on the front cover of the EA shows only the Pungo Unit of Pocosin Lakes NWR. The refuge's entire acreage, however, is addressed in the text on page 3.6-10.

**Section 3.1.1 Airspace** – In describing the primary users of airspace overlying eastern North Carolina, use by other federal agencies is not mentioned in the first paragraph. The Service uses airspace in eastern North Carolina to monitor endangered species and waterfowl numbers on several NWRs, to conduct annual mid-winter waterfowl surveys throughout the project area, to monitor and suppress wildland fires, and to conduct law enforcement activities. The National Park Service also uses airspace in eastern North Carolina. Corrections should be made to this section to reflect this airspace use.



**Section 3.1.1.6 Civilian Airports and Military Air Fields** – Two small landing strips located in Hyde County are not included in the text discussion, Table 3.1-2, or Figure 3.1-2 of this section. First, the North Carolina Forest Service maintains a landing strip and a plane north of Lake Mattamuskeet, near the Town of Fairfield, for fire detection and suppression. Second, a local crop duster, Tim Whitfield, has a landing strip just north of the Town of Fairfield.

**Section 3.1.2 Aircraft Operations in Eastern North Carolina** – Referencing Figure 3.1-4, the map does not reflect current flights for endangered species surveys (e.g., red-cockaded woodpecker (*Picoides borealis*)), southern pine beetle (*Dendroctonus frontalis*) monitoring, and wildland fire detection and management. In addition, on page 3.1-11 in the third paragraph, Figure 3.3-1 should read Figure 3.1-3.

**Section 3.2.1 Noise Descriptors** – We acknowledge that the EA does an outstanding job of describing the various metrics used to define noise levels. However, the EA insufficiently provides information on the perception of noise levels of the proposed action for eastern North Carolina. While the  $L_{dnm}$  metric is useful for measuring low and fast subsonic aircraft noise, the metric is inadequate when considered solely in measuring the “startle effect” on communities and wildlife. A noise analysis might be more meaningful in understanding the impacts on the effected environment and community if additional metrics (e.g., SEL - Sound Exposure Level,  $L_{max}$  - Maximum Level) are included and considered collectively. Furthermore, the  $L_{dnm}$  metric may be wholly unqualified for measuring the impacts of noise on wildlife. Unfortunately, the references you cited on page 3.2-4 in the first paragraph were not included in the References. Therefore, we could not determine whether or not these studies evaluated or were applicable for analyzing noise effects on wildlife. In general, the EA is deficient in evaluating the effects of noise on wildlife.

**Section 3.2.2.1 Ambient Noise Levels in Areas Outside Existing SUA** – The references cited in Table 3.2-2 are not included in the References. Therefore, we could not verify data cited. All references, especially those used to cite data, should be included in the References so that readers can evaluate and verify the data being used in assessing the proposed action.

**Section 3.2.2.2 Ambient Noise Levels in Areas Underlying Existing SUA** – In the noise modeling depicted in Figure 3.2-2 using DNL, about 10 percent of individuals living in the vicinity of the targets could be expected to be highly annoyed by existing aircraft operations, and between 1 and 7 percent of the individuals residing beneath R-5306A outside the target areas would be highly annoyed. However, the USMC has stated in the EA that DNL is not the appropriate metric for the proposed action to evaluate the impacts of noise on communities. While we realize analyzing noise impacts is a cumbersome task, we suspect that greater than 10 percent of the residents of eastern North Carolina will be annoyed by the proposed action if a more appropriate metric was used. In fact, during a scoping meeting in September 2000 for a Comprehensive Conservation Plan for Cedar Island National Wildlife Refuge, complaints of military aircraft activity over Cedar Island was the first issue raised by the public.

**Section 3.3.1 Aircraft Safety** – The EA reports that only two near midair collisions were filed for operations in North Carolina in 2000. We believe this section downplays the potential for near midair collisions or mishaps (i.e., actual collisions) by providing data from a single year. Furthermore, the EA does not address the plausibility of near midair collisions that go unreported.

**Section 3.3.2 Bird/Aircraft Strike Hazards** – The EA recognizes that eastern North Carolina represents a location with the greatest hazard for bird/aircraft strikes. However, details are not provided on the procedures implemented to minimize the potential for bird/aircraft strike hazards (i.e., 2d MAW's BASH plan). Furthermore, the document fails to acknowledge the biases in pilot reported bird/aircraft strikes (e.g., see Linnell et al., 1999).

**Section 3.3.3 Hazardous Materials Management** – We do not believe that a one hour response time to a mishap is realistic. Greater detail is needed on the spill response procedures, including plans and procedures for addressing wildlife impacts associated with hazardous materials.

**Section 3.4.1 Water Resources** – In describing the water resources of the study area, the size and depth for Lake Mattamuskeet is given as 42,000 acres and 2.5 feet. We have no specific bathymetric or other data on Lake Mattamuskeet, but we estimate its size at about 40,000 acres and its average depth at approximately 2 feet.

**Section 3.4.2.4 Birds** – The text discussion on ducks and geese and Table 3.4.3 oversimplifies and understates the importance of eastern North Carolina to migratory waterfowl. For example, North Carolina plays a vital role in the yearly cycle of the Eastern Population of tundra swans, wintering more swans, by far, than any other state on the East Coast. Approximately 60,000 to 80,000 tundra swan (*Cygnus columbianus*) – about 70 to 80 percent of this species occurring in the Atlantic Flyway – winter in eastern North Carolina to take advantage of the abundant food sources found in our lakes, sounds and farms. Most of these swans use the refuges and agricultural lands within the proposed Mattamuskeet MOA. Mid-winter waterfowl survey data maintained by the Service's Division of Migratory Birds demonstrates that 30,000 to 40,000 northern pintails (*Anas acuta*), about 50 to 60 percent of the Atlantic Flyway census total, routinely overwinter in North Carolina. Lake Mattamuskeet, impoundments on Mattamuskeet NWR, and nearby farmlands support approximately 50 percent (15,000 to 20,000 birds) of the State's wintering pintail population. The migratory Canada goose (*Branta canadensis*) also is a species of management interest in the study area, with numbers of wintering birds approaching 20,000 per year.

**Section 3.4.2.5 Terrestrial Mammals** – Dare and Beaufort counties should be added to the list of counties in which the red wolf (*Canis rufus*) occurs.

**Section 3.4.2.6 Reptiles and Amphibians** – The southern hognose snake (*Heterodon simus*) is not a listed species; however, it is considered a federal and state species of concern.



**Section 3.6.3 Tourism and Recreation** – In the paragraph discussing the value of tourism and recreation of each county it is important to acknowledge the counties in the study area, and that their natural resources (e.g., waterfowl, black bear, deer, and fish) are the primary attractions for the tourist and recreation dollar. Moreover, the EA does not address the Partnership for the Sounds, a partially state-funded, non-profit organization promoting an economic strategy in northeast North Carolina predicated in nature-based tourism. This partnership is an important component of recreation and tourism that must be addressed.

**Section 3.6.3.2 Open Space and Recreation (Hyde County) –**

**Pocosin Lakes National Wildlife Refuge** – The description of this refuge is not completely correct. The Pungo NWR was established in 1963, but the area became the Pungo Unit of Pocosin Lakes NWR when the new refuge was established in 1990. Also, Lake Phelps is not part of Pocosin Lakes NWR.

**Section 3.7.1.4 Hyde County** – A significant portion of Pocosin Lakes NWR lies within Hyde County and should be added to the list of refuges occurring in the county.

**Section 3.7.1.6 Tyrrell County** – The EA incorrectly states that Alligator River NWR is located in Tyrrell County. In addition, our records show 56,303 acres of Pocosin Lakes NWR occurs in Tyrrell County.

**Section 3.8 Air Quality** – The Swanquarter National Wilderness Area is a Class I air quality area which imposes stricter requirements on discharges within a 100 mile radius of the Class I area. This designation should be recognized in the EA.

**Section 4.1.2.2 Effects on Nonparticipating Civil Aircraft Operations** – The EA does not adequately address the impacts associated with increased air traffic above the voluntary minimum altitude of 2,000 ft. MSL and below the 3,000 ft. MSL ceiling created by the proposed action. This increased air traffic poses additional problems and concerns for aircraft and pilot safety, interference and disruption of non-military flights (e.g., wildlife surveys, wildland fire monitoring), and increased bird/aircraft strike hazards below the 3,000 ft MSL floor. The direct and indirect effects of the proposed action must be considered in the USMC's assessment of the proposed action. In addition, more detail is needed on how the MCAS Cherry Point RATCF would ensure that military aircraft engaged in training exercises would cause no "spillouts" from the MOA.

**Section 4.3.2.1 Aircraft Safety** – The EA uses national averages when discussing the potential for bird/aircraft strike hazards, and fails to recognize that local data more pertinent to the potential for bird/aircraft strikes to the Mattamuskeet MOA is available. Specifically, the U.S. Air Force contracted with Geo-Marine, Inc. ([www.Geo-Marine.com](http://www.Geo-Marine.com)) to monitor bird concentrations and movements on the Albemarle-Pamlico Peninsula and develop a Bird Avoidance Model for their pilots to use for activities related to the Dare County Bombing

Range. Geo-Marine completed the field work in 1994-96, the results of which documented bird flights as high as 3600 ft MSL. Potential for bird strikes above 3000 ft MSL was identified for the months of February, March, April, and November. The model recommends all altitudes below 4000 MSL be considered "bird plagued" during the peak of migration. In our recent telephone conversations with Geo-Marine, however, they indicated the potential for bird/aircraft strikes has probably increased since 1996 because tundra swans and snow geese have changed their feeding locations due to changes in agricultural practices in the study area since the monitoring study was conducted. Cotton has become a more prevalent crop in the study area and winter wheat less prevalent, which has forced swans and snow geese to range farther for food sources and consequently fly at higher altitudes. We suggest contacting Geo-Marine's principal investigator, Adam Kelly, at (850) 871-5657 for further clarification on the potential for bird/aircraft strikes in the Mattamuskeet MOA.

#### **Section 4.4.1.2 Core and Mattamuskeet MOA's Alternative –**

**Fisheries** – The EA does not address the impacts on fisheries resources associated with oil, gas, and hydraulic spills resulting from aircraft mishaps.

**Wading Birds and Colonial Waterbirds** – The EA provides little information on the effects of military overflights on wading birds and waterbirds. We recognize that there are many studies that report contradictory results on the effects of these activities on birds. However, it appears that the EA only provides information in support of a "no effect" or "little effect" position. In fact, studies such as Conomy et al. (1998a and 1998b) show that while some species habituate or show little startle response to aircraft overflights, other species never habituate during the course of the study. These researchers caution that inferences made from their results or similar research should not be extended to all species or all locations. Additional site-specific assessments of the effects of aircraft overflights on avian behavior and physiology must be conducted as part of a complete analysis.

**Snow Geese and Tundra Swans** – The EA's analysis of impacts on waterfowl is inadequate and inaccurate. While the EA references studies that indicate varying degrees of disturbance by aircraft to snow geese (*Chen caerulescens*), there is a little acknowledgment that the proposed action could result in more frequent flushing which could result in decreased feeding time and increased stress. By stating that Pocosin Lakes NWR continues to support a wide variety of wintering birds despite low-level military flights in airspace (R-5314) over Alligator River NWR and Pocosin Lakes NWR is misleading. The vast majority of the existing military flights over these refuges occur over pocosin, forest, and saltmarsh habitats, not directly over the primary waterfowl areas. Furthermore, to use the Service's aerial surveys (8 to 10 flights over a five-month period) as evidence that the waterfowl are habituated to overflights is inappropriate. We contend that two low-level, slow speed flights a month or once weekly is not sufficient exposure for wild migrant birds to habituate. Regardless, it is inappropriate to consider the impacts from these few flights as representative of the impacts that would be associated with the

number of military flights that would occur in the Core and Mattamuskeet MOAs (i.e., 1,460 and 2,423 sorties, respectively).

The EA also fails to analyze the impacts on migrant Canada geese and the many other species of waterfowl, particularly those gregarious species like canvasbacks (*Aythya valisineria*), ring-necked ducks (*Aythya collaris*), greater scaup (*Aythya marila*), lesser scaup (*A. affinis*), and redheads (*Aythya americana*), that flock together on large bodies of water like Lake Mattamuskeet and Pamlico Sound for security and food. The behavior mechanisms of these species do not allow them to habituate to disturbance factors, unlike dabbling ducks such as the mallard (*Anas platyrhynchos*) or black duck (*Anas rubripes*) that are more independent and solitary in their behavior. A classic example of the effects of these impacts can be seen in the Core Sound region (Cedar Island NWR area) of North Carolina where up to 40,000 redheads wintered in the 1950s. However, with increased development along the coastline and the associated impacts to water quality, increased boat traffic, modern commercial fishing impacts to vegetation, and frequent low level military aircraft activity, the Core Sound area now supports only 10 to 30 percent of the birds it once did.

Professional waterfowl managers have recognized for decades the value of sanctuary areas for wintering waterfowl. In fact, most of the national wildlife refuges established in the 1930's-40's were established as inviolate sanctuaries for these birds. Swanquarter NWR and Mattamuskeet NWR, as well as the Pungo Unit of Pocosin Lakes NWR, are examples of these sanctuaries. The EA fails to address the increased disturbance attributable to general aviation being confined to lower altitude flights between 2,000 ft and 3,000 ft MSL over these areas and the increased potential for violations from general aviation to violate the FAA recommended 2,000 MSL floor over national wildlife refuges.

**Section 4.4.1.3 Core and Cherry MOAs Alternative** – The Pamlico Sound, the bays around Swanquarter NWR, and the Pungo River traditionally support significant numbers of diving ducks (scaup, canvasback, redhead, etc.) which are gregarious species that are easily disturbed. The EA does not adequately address impacts on these species in this alternative. (See comments above.)

**Section 4.4.1.6 Cherry MOA Alternative** – See comments above.

**Section 4.5.2.1 Effects of Subsonic Noise-Induced Vibrations on Structures** – If high decibel levels (above 130 dB) can cause damage to structures (e.g., break windows, plaster walls or ceilings, etc.), then it seems logical that the analysis of noise impacts should be done with  $L_{Amax}$  values rather than  $L_{dnm}$  values. It only takes one noise-related vibration from a loud noise to cause damage. Average noise values have no meaning in this analysis.

**Section 4.6.2.1 Direct Impacts on Socioeconomic Resources** – The EA fails to consider waterfowl and other wildlife resources are an important economic commodity in the study area. If military overflights cause increased flushing of certain waterfowl species and the reproductive

capability of that species is reduced resulting in a decreased wintering population of snow geese, Canada geese, canvasbacks, etc., then there is a direct impact on the economic resources of the study area. Real estate adjacent to Mattamuskeet NWR with a viable waterfowl impoundment is some of the most valuable real estate on mainland Hyde County. If the Corps' MOA impacts waterfowl in the area, then the economy will be impacted.

**Section 4.6.2.2 Indirect Impacts on Socioeconomic Resources** – The EA acknowledges that noise could make the study area less desirable for tourists and there could be an indirect impact on local economics. However, in the discussion of judging impacts of noise on individuals, the analogy is overly simplistic. Most visitors to national wildlife refuges (and national seashores) are there not to view overflights of jets, but rather to enjoy the refreshing sounds and sights of the natural world where human impacts are minimal. That same visitor can be equally inspired by a military overflight at a military air show or similar event. However, we believe that it is safe to assume most visitors to national wildlife refuges would prefer to enjoy the natural resources and soundscape that those environs provide, namely, one without military overflights. Using the excuse that judging impacts of noise on individuals is subjective in the context of assessing impacts of military flights over sensitive areas is ill-conceived and argumentative.

**Indirect Impacts on Tourism and Recreation** – The EA references a study of recreation users (i.e., backpackers, sightseers, etc) in National Forest System wilderness areas and National Parks to imply most tourists would not be annoyed by military overflights in the study area. While the results of the referenced study might be applicable to Cape Lookout National Seashore and perhaps hunters on a forested portion of a refuge, it is not applicable to recreation users (e.g., birdwatchers, waterfowl hunters, etc.) on the shores of Lake Mattamuskeet or in the marshes of Swanquarter NWR. Type of user group and habitat type will influence the visitor's level of annoyance to the noise or presence of aircraft in the area.

The statement in the third paragraph on page 4.6-7 that “[a]ircraft operations occur routinely along MTRs that cross the Core Banks and the Lake Mattamuskeet area...” is not completely correct. While occasional, military and private aircraft may fly over Lake Mattamuskeet, the refuge manager of Mattamuskeet NWR contends this use is not frequent enough to refer to it as routine. Also, the Pamlico B MOA has a floor altitude of 8,000 ft MSL which provides the refuge adequate buffer from military aircraft use of the Pamlico MOA.

**Table 4.7-1 Future Land Use Trends in the Study Area Counties** – The majority of the land included in Pocosin Lakes NWR in Tyrrell County is wetlands, not prior converted agriculture land as is suggested in the table.

**Section 4.7.2.2 Coastal Zone Management and Land Use Zoning and Policy** – The EA fails to mention whether the USMC will adhere to the North Carolina Coastal Resources Commission's Aircraft Operations Standard. Furthermore, the Mattamuskeet MOA does not overlie any portion of Craven County; therefore, County policy on supporting growth and development of MCAS Cherry Point appears to be irrelevant. Rather, policies on economic

development of coastal zone management and land use zoning and planning relevant to those coastal counties affected should be evaluated in this section (e.g., Partnership for the Sounds). Lastly, in reference to emergency airspace use and unrestricted access below the 3,000 ft MSL altitude floor, what is "sufficient opportunity" and how does it provide "support for and facilitation of aircraft use by local, state, and federal government agencies for resource management, law enforcement, and public health, safety, and welfare?"

**Section 4.9.2.3 Development of a New Department of the Navy Outlying Landing Field (OLF)** – The EA provides very little detail on an analysis of the cumulative impacts associated with the proposed action and the proposed introduction of the F/A-18 E/F (Super Hornet) Aircraft to the East Coast of North Carolina and the development of a new OLF. We contend that details on potential impacts associated with these projects are available, as evidenced by the Navy's release of a draft EIS, dated July 2002, on the subject.

**Section 6 Relationship of the Proposed Action to Federal, State, and Local Plans, Policies and Controls** – Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds" is omitted from this section and not considered anywhere in the EA.

**Section 10 References** – Many articles, manuscripts, reports, and documents cited in the EA are not listed in the References section.

**Appendix B** – In reference to Table B-6, this project is not supported by an EIS; therefore, it cannot be determined whether or not the proposed project is consistent with the resource protection policies. We strongly recommend the USMC prepare an EIS to fully evaluate the potential impacts the proposed activities will have on federally-protected wildlife, the natural communities, and the soundscape. In addition, we recommend the USMC consider an MOA configuration that avoids the Lake Mattamuskeet and Pungo Lake areas, but would provide connectivity between airspaces R-5306A and R-5314. The Cherry MOA seems more acceptable to the Service in that there is less potential for impacts on waterfowl and bird/aircraft strikes than the Mattamuskeet MOA. Furthermore, while the proposed floor altitude of 3,000 ft MSL is much improved over the 500 ft MSL proposed for MOAs in the 1980s (and recommended by the Service at that time), we now have information from the study conducted by Geo-Marine, Inc. that bird flights do occur during the migration and wintering period above 3,000 ft MSL. For this reason, we strongly recommend that any MOA placed over or near the refuges in eastern North Carolina have a minimum altitude floor of 5,000 ft MSL during the period of November 1 to March 1 to avoid bird/aircraft strikes and minimize the potential disturbance to waterfowl and refuge visitors from military and private aircraft operations. Lake Mattamuskeet and the Pungo Unit of Pocosin Lakes NWR routinely support between 200,000 to 300,000 waterfowl each year, including 50,000 to 60,000 snow geese, 50,000 to 70,000 tundra swans, 5,000 to 10,000 Canada geese and over 100,000 individuals of greater than 20 species of ducks. Attempting to mix aircraft operations with these numbers of large birds, without an adequate buffer between the two, is going to cause significant physical, socioeconomic, and environmental conflicts.



We look forward to working with you on this issue and appreciate your cooperation with our agency in protecting federally-listed species. We are confident that our agencies can work cooperatively to find a solution that satisfies both of our missions. If you have any questions or comments, please contact Messrs. John Hammond or David Rabon of this office at (919) 856-4520 extension 28 and 16, respectively.

Sincerely,



Garland B. Pardue, Ph.D.

Ecological Services Supervisor

#### Literature Cited

Conomy, J. T., J. A. Collazo, J. A. Dubovsky, W. J. Fleming. 1998a. Dabbling duck behavior and aircraft activity in coastal North Carolina. *Journal of Wildlife Management* 62:1127-1134.

Conomy, J. T., J. A. Dubovsky, J. A. Collazo, W. J. Fleming. 1998b. Do black ducks and wood ducks habituate to aircraft disturbance? *Journal of Wildlife Management* 62:1135-1142.

Linnell, M. A., M. R. Conover, and T. J. Ohasi. 1999. Biases in bird strike statistics based on pilot reports. *Journal of Wildlife Management* 63:997-1003.

cc: Mattamuskeet NWR, Swan Quarter, NC (Don Temple)  
Alligator River NWR, Manteo, NC (Mike Bryant)  
Pocosin Lakes NWR, Columbia, NC (Howard Phillips)  
North Carolina Wildlife Resources Commission,  
Cape Lookout National Seashore,



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, D.C. 20240

In Reply Refer To:  
ER 02/0706

NOV 25 2003

Mr. Fred Pierson  
Department of the Navy  
Atlantic Division, Naval Facilities Engineering Command  
1510 Gilbert Street  
Norfolk, Virginia 23511-2699

Dear Mr. Pierson:

The U.S. Department of the Interior has reviewed the Department of the Navy's (Navy) Final Environmental Impact Statement (EIS) for the Introduction of the F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States, dated July 2003. We understand that the task of locating new homebasing and practice facilities for the Super Hornet aircraft is a challenge, and the Navy has done a good job of seeking public input. We appreciate the hard work that has gone into preparation of the Final EIS. However, the Department's U.S. Fish and Wildlife Service (FWS) has concerns with the preferred alternative and believes impacts to National Wildlife Refuge-related waterfowl wintering habitat and certain refuge operations are underestimated by the Navy. We could accept any of several alternatives not currently preferred by the Navy and offer suggestions for a particular alternative.

We bring the Navy's attention to three points which we believe need clarification. We are requesting these items be analyzed through the National Environmental Policy Act (NEPA) process to give the public a better understanding of the alternatives analysis. Our comments are submitted pursuant to, and in accordance with, provisions of the Fish and Wildlife Coordination Act, as amended, (16 U.S.C. § 661 et seq.), the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.), the Sikes Act, as amended (16 U.S.C. § 670a et seq.), and the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.).

First, we remain concerned about the impacts of the preferred alternative Outlying Landing Field (OLF), OLF Site C. Our concerns are with the impacts that OLF Site C aircraft operations will have on wildlife, wildlife management, and conservation actions at Pocosin Lakes National Wildlife Refuge (PLNWR). While page 2-104 acknowledges that some site-specific impacts to waterfowl in the vicinity of the OLF may occur, we believe the summary on page 2-105 suggesting that birds and wildlife at PLNWR "would not be affected" by operations at OLF Site C is far too conclusive. Impacts from aircraft noise are actually expected at PLNWR (SEL modeled at 79-93 dB, page 12-122), and the magnitude of those impacts needs to be better evaluated, particularly with regard to noise impacts on waterfowl and other wildlife. The OLF

EXHIBIT

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Site C is located in Washington County, and lies just west of the 12,000-acre Pungo Unit and the 600-acre B Canal Tract of PLNWR. Most of the adjacent lands in the OLF Site C area of influence are private agricultural lands that serve as important foraging areas for migratory birds. The Pungo Unit of PLNWR was established specifically as a waterfowl sanctuary, and 100,000 birds annually winter on the unit. Average peak numbers of tundra swans on the Pungo Unit are approximately 25,000, and snow goose numbers hit an all-time high of 65,000 this past year. Most of these birds regularly fly out to feed in the private agricultural fields to the west of the Pungo Unit, in the vicinity of OLF Site C. These flights occur both during the day and at night and are unpredictable. In addition to wintering waterfowl, the Pungo Unit hosts thousands of other migrant and resident birds throughout the year, many of which also feed in the surrounding agricultural fields.

We request that the substantial waterfowl survey database that FWS has acquired over the years of operating PLNWR be used to evaluate noise impacts to waterfowl and wildlife on PLNWR; we believe the historic record puts the limited data from the Navy's recent observations in their appropriate context. Use of our larger database would improve the accuracy and precision of noise impact modeling. This is particularly important given the addition of holding patterns and approach path locations, both of which are now shown to occur within 0.2 miles of the PLNWR boundary (a change from the Draft EIS to the Final EIS). The Final EIS indicates that, although these flight tracks are represented by single lines on the map, a band would be a better representation since many factors affect the actual flight path. This seems to indicate that approaching aircraft and aircraft in the holding pattern will likely routinely fly over PLNWR.

The FWS defers to the Navy's bird-aircraft hazard conclusions. We suggest that the Navy take advantage of our survey records as a sort of quality control on the assumptions and information used in the risk management assessment. These waterfowl-use records are available upon request or for review at the FWS's field offices.

Second, the FWS is very concerned with the conclusion that OLF Site C offers "compatible land uses" (page 2-75). Since the early stages of this project, the FWS has maintained that the wildlife management land uses adjacent to refuges and other areas managed to attract migratory birds and other wildlife are not compatible with increased low-level air traffic. The site includes parcels that the Department has enabled private landowners to manage for conservation and wildlife. We also remain concerned that this conclusion does not address our previously stated concern about the impacts that operations at OLF Site C will have on visitation at PLNWR. Visitors come to refuges to enjoy wildlife-dependent recreational activities such as hunting and bird and bear watching. We request the Navy to consider a more detailed analysis of this impact,



particularly the peak noise level impacts (which were not a focus in the existing analysis because averages were used).

Finally, we respectfully request that additional alternatives be evaluated, specifically, the Carteret County OLF siting alternative evaluated in the Draft EIS. This site was dropped from the Final EIS because of the Navy's determination of operational constraints on other Department of Defense facilities in the region. We recommend the Carteret County site be reassessed with consideration of the following positive attributes: (1) the Open Grounds Farm parcel within the county has the acreage needed for the OLF as defined in the Final EIS; (2) environmental organizations in North Carolina have advocated the Open Grounds Farm site since 1994, and the Navy would be welcomed at this location due to the opportunities for environmental restoration; (3) purchase from a single corporate farming operation would likely be less expensive based on land costs and the need to displace fewer homes and families; and (4) the wetland restoration opportunities on this tract are real. Restoring wetland hydrology in conjunction with OLF construction would help cure long recognized water quality problems in the Neuse River affecting shellfish populations and would also protect water quality in Core Sound. This type of wetland restoration would not attract waterfowl and would improve opportunities for recreational and commercial fishing. We believe the Navy would get a substantial amount of praise and positive feedback for working to restore water quality in the Neuse River (one of North Carolina's highest priority impaired water bodies). While that site would not be free of environmental impacts (including those to birds as referenced in the February 2002 comments on the project), it is our opinion that these impacts would be far less than those associated with development and operation of OLF Site C.

We encourage the further consideration of the Carteret County option which we believe to have some significant advantages under your site evaluation criteria. If the air traffic constraints on adjacent Marine and Navy facilities can be managed (an issue on which we defer to the Navy's expertise), this site may well offer the "win-win" solution so often sought. We request the Navy to reconsider this site. We also suggest the Navy continue to use the NEPA process as an opportunity to address the concerns we have outlined and to consider other siting alternatives (OLF Site E, in Craven County, OLF Oak Grove, in Jones County, and OLF Atlantic, in Carteret County, or constructing parallel runways to existing facilities).

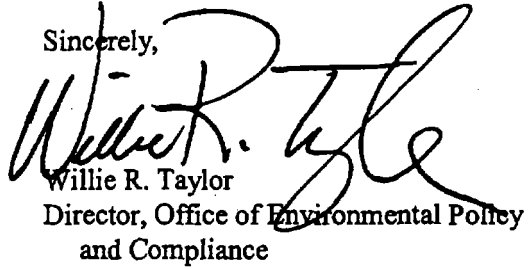
Again, we recognize the seriousness and magnitude of your task in locating homebasing and OLF facilities in the mid-Atlantic, and we appreciate the opportunity to comment on this proposed action. We also appreciate the work that has been done to date, and we encourage the further consideration of the options described above, which we believe to have some significant advantages under your site evaluation criteria. We would be pleased to provide additional technical assistance upon request.

Mr. Fred Pierson

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If you have any questions or comments, please contact Dr. Garland Pardue of the FWS's Raleigh Office at 919-856-4520, extension 11. Additional queries may also be directed to Ken Havran in the Office of Environmental Policy and Compliance at 202-208-7116.

Sincerely,

A handwritten signature in black ink, appearing to read "Willie R. Taylor", is written over the printed name and title. The signature is fluid and cursive, with a large initial "W" and a stylized "T".

Willie R. Taylor  
Director, Office of Environmental Policy  
and Compliance

## FACSIMILE TRANSMITTAL HEADER SHEET

For use of this form, see AR 25-11; the proponent agency is ODISC4

COMMAND/ OFFICE	NAME/ OFFICE SYMBOL	OFFICE TELEPHONE NO. (AUTOVON/Comm.).	FAX NO. (AUTOVON/Comm.).			
FROM: U.S. Army Corps of Engineers, Wilmington District	Justin P. McCordie Assistant District Counsel	910-251-4699	910-251-4044			
TO: Southern Environmental Law Center	Derb Carter	919-967-1450	919-929-9421			
CLASSIFICATION	PRECEDENCE	NO. PAGES (Including this Header) 10	DATE-TIME 07 - 2:10 pm	MONTH Jan	YEAR 2004	RELEASER'S SIGNATURE D. Jansen

REMARKS

Space Below For Communications Center Use Only

DA FORM 3918-R, JUL 90

DA FORM 3918-R, AUG 72 IS OBSOLETE

USAPPC V2.10

EXHIBIT

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**DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890**

IN REPLY REFER TO

January 7, 2004

Office of Counsel

SUBJECT: Freedom of Information Act No. 04-21

Debb S. Carter, Jr., Esq.  
Southern Environmental Law Center  
200 West Franklin Street  
Suite 330  
Chapel Hill, North Carolina 27516

Dear Mr. Carter:

This is in reply to your electronic mail request for information under the Freedom of Information Act (FOIA). You requested copies of two specific letters from the files maintained in the Wilmington District's Washington Regulatory Field Office.

Enclosed are the documents responsive to your request.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin P. McCordle".

Justin P. McCordle  
Alternate Freedom of Information Act Officer

Enclosures

Scoping LTR

September 24, 2002

**Regulatory Division****Action ID No. 200211070**

Mr. Fred Pierson  
Atlantic Division,  
Naval Facilities Engineering Command  
1510 Gilbert Street  
Norfolk, Virginia 23511-2699

Dear Mr. Pierson:

This correspondence confirms our receipt of your letter dated July 24, 2002, regarding the Draft Environmental Impact Statement (DEIS) that has been prepared by the Navy for evaluation of the environmental consequences associated with the introduction of F/A-18 E/F Super Hornet aircraft to the east coast of the United States. The purpose of this correspondence is to provide you with comments from the U.S. Army Corps of Engineers, Wilmington District's Regulatory Division. Please be advised that these comments are restricted to activities proposed for North Carolina.

The DEIS identifies two preferred alternatives (ALT 4A and ALT 6) for the homebasing and operation of the aircraft fleet. Both alternatives involve construction work within wetlands at the Cherry Point Marine Corps Air Station (MCAS), in Havelock, Craven County, North Carolina. Additionally, the DEIS identifies six sites as potential locations for the construction of an Outlying Landing Field (OLF) and ancillary facilities in the following North Carolina counties: Perquimans, Bertie, Washington, Craven and Hyde. According to the Navy, the preferred OLF locations under either homebasing alternative are, 1) "Site C" in Washington County, and 2) "Site E" in Craven County.

Review of the DEIS revealed that the following must be addressed:

1. Early coordination is key to the expeditious evaluation of this proposal. I strongly recommend that you begin coordinating with Mr. Scott Jones of my staff, telephone (252) 975-1616, extension 27, regarding this project.

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2. Department of the Army (DA) permit authorization, pursuant to Section 404 of the Clean Water Act, will be required for the discharge of excavated or fill material in waters of the United States, including wetlands, in conjunction with this project, including disposal of construction debris, borrow, wasting and other associated construction activities. Specific permit requirements will depend on design of the project, extent of fill work within wetlands and streams (dimensions, fill amounts, etc.), construction methods, and other factors.

3. National Wetlands Inventory (NWI) mapping was utilized to estimate the size and location of wetlands resources at Cherry Point MCAS and within the proposed OLF construction areas. NWI mapping is outdated and our experience over the years confirms it is very inaccurate. For all alternatives, a much more in-depth analysis must be conducted pursuant to the 1987 Corps of Engineers Wetlands Delineation Manual. Please be advised that this more accurate wetlands analysis may affect the suitability of certain alternatives from an environmental standpoint. Additionally, please be aware that some of the jurisdictional determinations referenced within the DEIS have expired.

4. Once a more accurate wetland determination has been undertaken, in order to more accurately consider each alternative, you must provide more detailed information regarding the scope of impacts to waters and wetlands associated with this project.

5. On February 6, 1990, the DA and the U.S. Environmental Protection Agency signed a memorandum of agreement (MOA) establishing procedures to determine the type and level of mitigation necessary to comply with the Clean Water Act Section 404(b)(1) Guidelines. Permits for work within wetlands or other special aquatic sites are available only if the proposed work is the least environmentally damaging, practicable alternative. This MOA provides for first, avoiding impacts to waters and wetlands through the selection of the least damaging, practicable alternative; second, taking appropriate and practicable steps to reduce impacts on waters and wetlands; and finally, compensating for any remaining unavoidable impacts to the maximum practicable extent.

6. The DEIS should also address your plans to provide compensatory mitigation for unavoidable impacts to waters of the United States, including wetlands.

Please be advised that we may have additional questions and comments as our review of this proposal continues.

-3-

Thank you for your time and cooperation. If you have any questions, please contact Mr. Scott Jones of my Washington Regulatory Field Office staff, telephone (252) 975-1616, extension 27.

Sincerely,

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David M. Lekson, P.W.S.  
Chief, Washington Regulatory Field Office

**Copies Furnished:**

Mr. Ronald J. Mikulak, Chief  
Wetlands Regulatory Section  
Water Management Div.  
U.S. Environmental Protection Agency  
61 Forsyth Street, SW  
Atlanta, GA 30303

Mr. Garland B. Pardue  
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Fish and Wildlife Enhancement  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

Mr. Ron Sechler  
National Marine Fisheries Service  
Habitat Conservation Division  
Pivers Island  
Beaufort, North Carolina 28516

-4-

Mr. John Dorney  
Division of Environmental Management  
North Carolina Department of Environment  
and Natural Resources  
1650 Mail Service Center  
Raleigh, North Carolina 27699-1650

Mr. Terry Moore  
Division of Coastal Management  
North Carolina Department of Environment  
and Natural Resources  
943 Washington Square Mall  
Washington, North Carolina 27889

Mr. Ted Tyndall  
Division of Coastal Management  
North Carolina Department of Environment  
and Natural Resources  
151-B Highway 24  
Hestron Plaza II  
Morehead City, North Carolina 28557

Mr. Floyd Williams  
Division of Land Resources  
North Carolina Department of Environment  
and Natural Resources  
943 Washington Square Mall  
Washington, North Carolina 27889



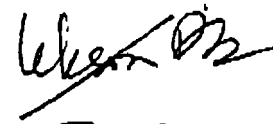
-5-

Mr. Charles W. Walker, Head  
Environmental Planning Branch  
Department of the Navy, Atlantic Division  
Naval Facilities Engineering Command  
1510 Gilbert Street  
Norfolk, Virginia 23511-2699

-6-

**Blind Copies Furnished:**

Jolly/RG  
Lamson/OC  
McCorcle/OC  
Willis/TS-PS  
Barnett/CESAD-CM-P

  
Jones

CESAW-TS-PS (1165-2-26b)

December 4, 2003

MEMORANDUM FOR Commander, U.S. Navy, Atlantic Division, Naval Facilities Engineering Command, Attn: Mr. Charles W. Walker, P.E., Head, Environmental Planning Branch, 1510 Gilbert Street, Norfolk, VA 23511-2699

SUBJECT: July 18, 2003 Request for Comments - Final Environmental Impact Statement for Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States

1. Per your July 18, 2003, request, our comments on the subject issue as it relates to areas within the U.S. Army Corps of Engineers, Wilmington District, are given below.

2. Comments on Flood Plains: POC Mr. Bobby Willis, Planning Services Section at (910) 251-4728. For MCAS Cherry Point: Based on a review of panels 7 and 9 of the May 1987 City of Havelock Flood Insurance Rate Map (FIRM), it appears that Jack Branch and another tributary to Hancock Creek would be crossed or the flood plain possibly impacted by the proposed runway and related improvements. The 100-year (base) flood elevation at this location is 9 feet N.G.V.D., the source being coastal storm surge. This stream and tributary involvement is noted on page 6-99 of the document. Statements addressing Executive Order 11988 are also included in this section of the report. We suggest that the City of Havelock be contacted to ensure compliance with their flood plain ordinance.

From various panels of the July 1985 Perquimans County and December 1985 Bertie County FIRMs, it appears that the footprint for the proposed alternate outlying landing fields (OLFs) involve the 100-year flood plain where flood elevations have not been precisely determined. Based on a review of panels 275 and 290 of the February 1987 Hyde County FIRM, the proposed alternate OLF site is in the 100-year flood plain, where the base flood elevation is 5 feet N.G.V.D. From the November 1994 Washington County FIRM index and panel 125 of the May 1987 Craven County FIRMS, neither OLF site appears to be in an identified flood hazard area. Once the OLF site is selected, we suggest coordination with the pertinent county if the flood plain is impacted to ensure compliance with their flood ordinance.

3. Comments on Waters of the United States and Wetlands: POC Mr. David Lekson, Washington Field Office, Regulatory Division at (252) 975-1616, extension 22.

a. Early coordination is key to the expeditious evaluation of this proposal. I strongly recommend that you contact Mr. Scott Jones of the Washington Regulatory Field Office, telephone (252) 975-1616, extension 24.

b. Department of the Army (DA) permit authorization, pursuant to Section 404 of the Clean Water Act, will be required for the discharge of excavated or fill material in waters of the United States, including wetlands, in conjunction with this project, including disposal of construction debris, borrow, wasting and other associated construction activities. Specific permit requirements will depend on design of the project, extent of fill work within waters and wetlands (dimensions, fill amounts, etc.), construction methods, and other factors.

CESAW-RG-Wilekson

CESAW-TS-PS (1165-2-26b)

SUBJECT: July 18, 2003 Request for Comments - Final Environmental Impact Statement for Introduction of F/A-18 E/F (Super Hornet) Aircraft to the East Coast of the United States

c. National Wetlands Inventory (NWI) mapping was utilized to estimate the size and location of wetlands resources at Cherry Point MCAS and within the proposed OLF construction areas. NWI mapping is outdated and our experience over the years confirms it is very inaccurate. For all alternatives, a much more in-depth analysis must be conducted pursuant to the 1987 Corps of Engineers Wetlands Delineation Manual. Please be advised that, from an environmental standpoint, this more accurate wetlands analysis may affect the suitability of certain alternatives.

d. On February 6, 1990, the DA and the U.S. Environmental Protection Agency signed a memorandum of agreement (MOA) establishing procedures to determine the type and level of mitigation necessary to comply with the Clean Water Act Section 404(b)(1) Guidelines. Permits for work within wetlands or other special aquatic sites are available only if the proposed work is the least environmentally damaging, practicable alternative. This MOA provides for first, avoiding impacts to waters and wetlands through the selection of the least damaging, practicable alternative; second, taking appropriate and practicable steps to reduce impacts on waters and wetlands; and finally, compensating for any remaining unavoidable impacts to the maximum practicable extent. This information is essential to our Regulatory Division's expeditious processing of your application.

W. COLEMAN LONG  
Chief, Planning and  
Environmental Branch

BCF:  
CESAW-RG-W/Lekson

13 August, 2003

Jeffrey J. Short  
3064 Eutaw Forest Dr.  
Waldorf MD 20603-4047

The Honorable Hansford Johnson  
Acting Secretary of the Navy  
1000 Pentagon.  
Washington DC 20350-1000

Subject: F/A 18 E/F FEIS Official Comment

Dear Secretary Johnson,

On 7 April, 2003, I wrote to the Navy to express concern that the proposed siting of an Outlying Landing Field (OLF) would lead to significant birdstrike risks to Super Hornet aircraft operating there. My review of the Final Environmental Impact Statement (FEIS) on the basing of the Super Hornet squadrons, shows that the Navy is still giving short shrift to the resolution of the bird-aircraft strike hazard (BASH) at alternative OLF sites, particularly the preferred location in Washington County, North Carolina (Site C). The data collected in support of the decision was limited and merely represents a cursory examination of the BASH problems at the proposed OLF sites. Aside from the serious flight safety concerns, failure to consider fully the extent of the BASH at the Site C location is causing the Navy to underestimate the total, life-cycle costs that will be required to conduct safe, flight operations at the proposed OLF.

I commend the Navy for using state-of-art tools to examine the extent of the BASH problem at the proposed OLF sites. The FEIS presented data trying to justify the choice of Site C over the other sites. The Bird Avoidance Model (BAM) study presented in the FEIS shows that the bird hazard is classified as "severe" for several alternatives during those months when huge numbers of ducks, geese and swans are present at local wildlife refuges. A one-month, Mobile Avian Radar System (MARS) study was undertaken to determine the extent of individual bird and flock movements at Site C. Apparently, the Navy had made its decision on the preferred OLF site prior to February 2003 since MARS was not used to examine the alternative sites that had less severe BAM predictions. If a valid comparison is to be made between alternatives, then MARS (or similar) studies should be conducted at the other sites and should include the period(s) with the highest waterfowl activity at local refuges.

The Navy will take-on significant, legal liability by choosing an OLF (Site C) with a severe bird hazard. The Navy must take prudent—and costly—actions to ensure that it mitigates the bird hazards associated with this action. The FEIS states that these hazards are manageable through scaring and agricultural changes to the region, and that the Navy will do so. But the wisdom of such a decision to choose to select a site with acknowledged, documented, severe, bird hazards over other alternatives with a more moderate—and manageable—hazards is confounding. The FEIS doesn't provide a convincing answer or sufficient documentation for the reader to come to a similar conclusion.

The FEIS notes that the "Navy will *develop* a BASH plan for the selected OLF site to minimize the overall BASH risk" (FEIS, pg. 12-147). The Navy should commit resources (budget, equipment and personnel) to *implement* a BASH plan for the selected OLF. Implementation of

EXHIBIT

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an effective BASH plan will require significant outlay of resources and budget each year the OLF is in operation to ensure the mission is conducted safely and within acceptable wildlife management constraints. During the periods when the OLF and surrounding airspace is inundated by birds, local bird movement advisories—or some other similarly effective means of warning the aircrews—must be provided to the aircraft and operations personnel. A system similar to MARS could provide the needed level of bird hazard awareness. The Navy should include these cost elements as part of the FEIS documentation and life-cycle cost analysis for the chosen alternatives.

The FEIS's contention that the significant BASH risks at Site C are normal when compared to many other bird strike hazards at airfields on the Atlantic Coast is a poor excuse for adding yet another airfield that also will have severe hazards. One of the important operational needs for the OLF, nighttime training, will be significantly impacted by the severe waterfowl risks at Site C. A Super Hornet aircraft may be designed to withstand a birdstrike from gulls or hawks, but a collision with even a single goose or swan will surely challenge the Super Hornet's birdstrike design capability.

The FEIS alludes to the anticipated use of the OLF by other aircraft, such as the Joint Strike Fighter (JSF). The single-engined, JSF actually may be more susceptible to birdstrikes than the Super Hornet. Even though the cumulative impacts of basing the JSF may not be within the scope of the FEIS, the Navy's expectation of increased birdstrike risks to other aircraft should be documented properly. This re-evaluation could provide a persuasive reason to choose another alternative with reduced bird hazard risks.

The "pound-of-cure" solution the Navy currently is advocating in the FEIS could be resolved with an "ounce-of-prevention", beginning with a different basing strategy for the Super Hornet squadrons. In an era where the Federal government is trying to divest itself of real property, the acquisition of additional land for the OLF is an incongruity. This, combined with an expectation for increased life-cycle costs for the facility and the potential for significant BASH problems that would affect sustained air operations, creates the impression that the FEIS is slightly out-of-step with the future needs of the Navy and the local communities.

I hope the Navy will reassess their decision to build an OLF at Site C as proposed in the FEIS. By correcting a BASH situation before it begins, the Navy can help save lives while preventing the inevitable drain on mission resources to manage a never-ending and controversial problem.

Sincerely,

JEFFREY J. SHORT  
COLONEL (Retired), USAFR

CC:  
Adm Natter, Commander, Atlantic Fleet  
J. Dan Cecchini, NAVFACENGCOM

7 April, 2003

Jeffrey J. Short, Colonel (ret.) USAFR  
3064 Eutaw Forest Drive  
Waldorf MD 20603

Mr. Wayne Arney  
Deputy Assistant Secretary of the Navy (Installations and Facilities)  
1000 Navy Pentagon, Rm. 4E765  
Washington DC 20350-1000

Dear Mr. Arney,

As a quick introduction, I recently retired from the USAF Reserves with experience as a combat-rescue pilot and research scientist. I have spent the majority of my career working to reduce losses of aircrews and aircraft to bird-aircraft strike hazards (BASH). I have been closely involved in every aspect of the BASH issue: airfield hazard evaluations, bird hazard management and control, risk assessment and modeling, applied engineering studies, and could be considered the "father" of the USAF Bird Avoidance Model--still in use after two decades. Since 1996, I have served the International Bird Strike Committee as Technical Advisor.

I write to express my concern that a Navy Outlying Landing Field (OLF), proposed to be located approximately five miles west of the Pungo Unit, Pocosin Lakes National Wildlife Refuge (PLNWR) in eastern North Carolina, may have disastrous results. In 25 years of dealing with military BASH issues, I cannot recall a worse place to situate an airfield for jet training. Aircraft at the proposed OLF would suffer from continual and dangerous hazards to safe operations due to the huge waterfowl populations that use the PLNWR from October to March each year. I should note that my interests are related solely to the safe flight operations at the OLF and protection of the aircrew and aircraft resources that would use the OLF; I have no property or other interests in the area of the proposed site.

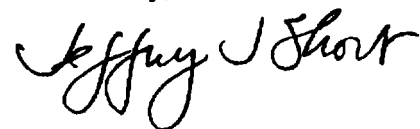
Since the Navy is aware of the bird hazards at the proposed site, it would seem prudent either to mitigate or remove the risk. This foreseeable hazard could make the Navy liable if (or "when") a fatality occurs from a bird strike at the OLF. The dangers caused by birds--especially in the great numbers using the PLNWR--are well-known. Indeed, Navy Safety Center guidance admonishes aviators to avoid flying near wildlife refuges and known concentrations of waterfowl.

Considering the significant bird strike hazards and their impact on the mission, it would seem to be folly for the Navy--and the U.S. taxpayers--to invest in the development of an OLF near the PLNWR. It will prove to be difficult and expensive for the Navy to ensure that these serious hazards are controlled adequately to allow year-round flight operations. The life-cycle costs of trying to manage the bird hazard risks at the OLF would be substantial, and perhaps, ultimately ineffective. Regarding life-cycle costs, the proposed OLF location would seem to be a terrible investment considering the additional expenditures related to degraded aircraft operations, reduced training opportunities, costly repairs for Navy aircraft, and predictably, increased loss-of-aircraft and/or loss-of-life aircraft mishaps. Complete elimination of the bird hazards might be considered more objectionable than noise impacts from using an alternate OLF site.

My hope is that you will seriously consider the recommendations of the U.S. Fish and Wildlife Service, North Carolina Wildlife Resources Commission, Ducks Unlimited, The Nature Conservancy, Audubon (North Carolina), and others, to abandon the plans for the proposed OLF site near PLNWR. Alternate sites are available that will provide safe flight training and that meet other Navy criteria for acceptance.

Losses to due to birds and other wildlife are preventable. The Nation can't afford to lose precious aircrew and aircraft resources to birds. Fortunately, the decision to locate the OLF at another site will protect Navy resources. Please don't hesitate to contact me at (301) 932-4612 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffery J. Short". The signature is fluid and cursive, with the first name "Jeffery" being more prominent than the last name "Short".

cc:

Dan Cecchini  
Matt Klope



## RESUME

NAME: Jeffrey J. Short, Colonel, USAFR (retired 1 Jul 2002)

FORMER AFRL ORGANIZATION: AFRL/XP

ADDRESS: HQ Department of Energy (EM-51)  
1000 Independence Ave, SW  
Washington, DC 20585

HOME PHONE: (301) 932-4612; FAX (301) 932-9365

WORK PHONE: (202) 586-2675; FAX (202) 586-9440

EMAIL: jeffrey.short@em.doe.gov

### EMPLOYMENT HISTORY

*Techn Advisor to  
Intnl. Bird Strike Committee*

ORGANIZATION LOCATION: **Air Force Research Laboratory (AFMC)**, Wright-Patterson AFB, Ohio

DUTY TITLE(S): *Senior IMA to the Director, Plans and Programs*

GRADE: O-6

ASSIGNMENT DATES: (17 May 1999 – 1 July 2002)

#### JOB DESCRIPTION and SIGNIFICANT ACCOMPLISHMENTS :

- Developed subject matter expert database to identify reservists with the proper experience/skills to support AFRL, AFMC, and SAF/AQ projects
- Championed additional reserve support; reassigned individuals to meet new requirements
- Identified technology transition opportunities for three systems that can reduce bird hazards to aircraft; successful commercialization of inexpensive, hand-held laser for bird control
- Authored paper on emerging bird hazard technologies; presented to international flight safety organization
- Solicited support from AFOSR to begin research initiatives into bird sensory systems that would form the basis for new tools for bird control at airfields and in buildings
- Review committee member on AFOSR STTR on acoustic bird monitoring system
- Senior Reservist responsible for 12 reservists from O-2 to O-6

U.S. Department of Energy, Office of Long-term Stewardship (LTS), Washington, DC

*Waste Management Engineer*, GS-801-14; December 1, 1999 – Present

- Responsible for LTS Science and Technology Roadmap and other initiatives and liaison with internal/external DOE organizations
- Prepared and staffed Deputy Secretary memorandum on transfer of long-term stewardship responsibilities
- Prepared FY01-02 planning and budget guidance
- Defined work breakdown structure for long-term stewardship projects for incorporation into Environmental Cost Element Structure and Environmental Cost Analysis System
- Senior Reservist responsible for 12 reservists from O-3 to O-5

Air Force Research Laboratory (AFMC), Wright-Patterson AFB, OH;

*Senior IMA to the Director, Human Effectiveness Directorate*, O-6, 17 May 1998 – 16 May 1999

- Expanded reservist support of AFRL/HE at three operating locations: Brooks AFB, Texas; Mesa, Arizona; and, Wright-Patterson AFB, Ohio
- Analyzed "open" safety items to bolster AFRL/HE customer support
- Identified technology transition opportunities from AFRL/HE product development
- Made presentations on USAF bird hazard reduction research at three international conferences

U.S. Department of Energy, Office of Pollution Prevention, Germantown, MD;

*Waste Management Engineer*, GS-801-14; May 1992 – November 30, 1999

- Developed and executed DOE pollution prevention policy, plans and guidance
- Represented pollution prevention research needs on inter-/intra-agency selections
- Headed efforts to reuse DOE materials and equipment and better manage assets
- Coordinated budgetary guidance for pollution prevention efforts by the field
- Launched pollution prevention return-on-investment program netting huge savings to DOE
- Led outreach and recognition of facility pollution prevention achievements at national awards
- Initiated affirmative procurement guidance and automated field tracking and reporting system

**U.S. Air Force, Windshield Systems Program Office (HQ ASC/WL/FIVE-1, Wright-Patterson AFB, OH)**  
*Aircraft Flight Hazards Analyst, O-3 to O-5 (USAFR); May 1985 - Present*

- Analyzed NASA **Space Shuttle risk from bird hazards** at primary landing sites
- **Validated bird avoidance models for new generation of USAF jet aircraft**
- Evaluated life-cycle cost estimation tools to reduce costs from hazardous materials
- Spearheaded **development of bird hazard reduction technology database**
- Organized cooperative technology memorandum with USAF, FAA and USDA
- Examined **the use of infrared sensors and sound for bird hazard warning** and control
- Refined **bird density measurements using medical computed tomography diagnostic systems**

**White House Office of the Federal Environmental Executive (Washington, DC);**  
*Waste Prevention Program Manager, GS-801-14; October 1994 - October 1995*

- Analyzed federal compliance with environmental Executive Orders and legislation
- Coordinated return of recycling revenue to Federal agencies (per PL 103-329)
- Organized first White House "Closing the Circle" awards program (per EO 12873)
- Chaired Pollution Prevention Technology Transition subcommittee (per EO 12856)

**U.S. Air Force, Pollution Prevention Division (HQ AF/CEVV, Bolling AFB, DC),**  
*Environmental Engineer, GS-819-13; January 1989 - May 1992*

- Developed and coordinated USAF pollution prevention program and guidance
- Formulated and prepared environmental research and development acquisition strategic plan
- Analyzed pollution control investments and remediation of formerly used sites
- Developed outreach materials and display for USAF pollution prevention program

**U.S. Air Force, Environics Division (HQ AFESC/RDVW, Tyndall AFB, FL),**  
*Environmental Research Engineer, GS-819-12; February 1986 - December 1988*

- Assistant Manager of \$20 million pilot- and full-scale research demonstrations to remediate dioxin-contaminated sites
- Managed extramural biodegradation projects and soil characterization contracts
- Conducted research to optimize excavation of soil contaminated with Herbicide Orange
- Transferred research results through international environmental engineering symposia

**U.S. Air Force, 33rd Aerospace Rescue and Recovery Squadron, Kadena AB, Okinawa, Japan;**  
*Assistant Helicopter Flight Commander, O-3; May 1983 - October 1984*

- Maintained full flight competency as a combat rescue helicopter (HH-3H) pilot
- Responsible for administration of 20 crewmembers and operation of 5 helicopters
- Planned and organized several joint and combined military exercises on Okinawa
- Prepared in-depth evaluations of unit readiness to support Western Pacific theater operations

**U.S. Air Force, Environmental Planning Division (HQ AFESC/DEV, Tyndall AFB, FL);**  
*Bird-Aircraft Strike Hazard Team Leader; Range Planning Officer, O-3; November 1978 - April 1983*

- Developed **Air Force-wide bird hazard reduction implementation plans** and guidance
- Led **birdstrike hazard assessment team** for over 100 military installations, worldwide
- Established **computerized system to maintain and evaluate information on birdstrikes**
- Organized, conducted, applied and transitioned research in bird avoidance and control
- Transitioned **weapons delivery modeling technology to enhance range operations and safety**



Panama City, Florida, USA

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October 13, 2003

Gordon R. England  
Secretary of the Navy  
1000 Navy Pentagon  
Washington, D.C. 20350-1000

Dear Secretary England,

I am writing to you to express my concern with the US Navy proposal to construct and operate an outlying landing field (OLF) near Pungo Lake in Washington County, North Carolina. The recent signing of the Record of Decision (ROD) underscores my conclusion that the bird strike issue was minimized in the Final Environmental Impact Statement. I know that there are many elements that are considered in site selection and that there will always be impacts that cannot be avoided. However, the potential for a catastrophic bird strike at the proposed site near Pocosin Lakes National Wildlife Refuge has not been fully addressed. The following should be considered:

- The Bird Avoidance Model (BAM), a risk model developed by the US Air Force, forecasts severe bird strike potential for the Washington County site for 50% of the year. There are very few places in the United States where this level of threat exists.
- The radar study at the proposed site near Pungo Lake was conducted late in the wintering season when bird populations would be declining. Even so, over a 12-day survey period, the vertical scanning radar detected over 450,000 birds moving through the 24-degree beam. Of these targets, over 40,000 were flocks of large birds, and over 70,000 were identified as large birds. This represents a serious threat to aircraft safety during a twelve-day period at the end of the winter.
- The ROD suggests that bird detection radar would be considered as part of the bird strike mitigation program. This OLF cannot be operated safely without the use of a sophisticated bird detection system – yet nowhere in the United States is such a radar system operational on a daily basis. The US Navy does not have operational procedures to integrate bird detection radar into air traffic control.

I have been aware of the severe bird strike hazards facing military pilots flying in this region since 1988 when I was assigned as Chief of the Bird Aircraft Strike Hazard (BASH) Team at the Environmental Engineering Division, Headquarters United States Air Force, at the Pentagon (my resume is attached). To address this concern I worked with the Air Combat Command to conduct a two-year study at the Dare County Bombing

Range in 1994. The results of that study resulted in an area-specific bird avoidance model (BAM) to assist aircrews in identifying periods of time when bird activity at the range could be hazardous. During that study, the biologists who were assigned the task of tracking birds and developing the risk model became familiar with many of the factors that contribute to the complex dynamics of bird movements in the region. Daily changes in weather patterns as well as the seasonal and yearly changes in agricultural practices made forecasting daily bird movement patterns nearly impossible. The Dare County Bombing Range BAM assisted Air Force pilots in planning periods of time when the range would be safe, but long periods of time still were identified when the range could be plagued with unacceptably high concentrations of birds moving through the area.

In January 2003, I was an employee with Geo-Marine, Inc., an environmental services company that was contracted by the US Navy to review BASH issues at each of the six proposed OLF sites. We also were contracted to conduct a radar survey of birds at Site C, near Pungo Lake, part of the Pocosin Lakes National Wildlife Refuge. It was my group that designed and built the mobile radar system that was deployed to the site in February 2003. Additionally, I was responsible for developing the survey protocol for the radar study and preparing the draft report. When initially contacted about this study by the Geo-Marine staff at Newport News, Virginia, I was concerned with how late in the wintering period the study was to be conducted, as well as the short duration of the surveys (4 weeks). I explained that the study would not be indicative of bird numbers or movement patterns throughout the winter and would serve only to show that the radar system was capable of detecting bird movements in the region.

The project also included a detailed review using the US-BAM as well as on-site evaluations. The BAM study indicated that Site C was severe 50% of the year. Only Site D, near Lake Mattamuskeet, had longer periods of severe ratings (58% of the year). Sites A and B each were severe 49% of the year, while the two sites that were not located in the immediate region indicated a dramatically lower bird strike risk with Site E being severe only 1% of the year, and Site F never reaching a severe rating. The ROD suggests that a severe rating 58% of the year was unacceptably high, and yet considered the 50% severe rating at Site C comparable to the severe ratings at NAS Oceana (31%) and NALF Fentress (36%).

The purpose of the on-site assessments was to identify potentially hazardous conditions that would further exacerbate the bird and wildlife strike hazard concerns. Site D (deemed unacceptably risky) is situated close to Lake Mattamuskeet. Site C is situated within five miles of Pungo Lake (a major wintering area for tundra swans and snow geese). None of the other sites in the study were situated close to such habitats. And yet, only Site D was determined to have unacceptable bird strike risk potential.

The Record of Decision (ROD) and the Environmental Impact Statement (EIS) for the Introduction of the F/A 18 E/F (Super Hornet) to the East Coast of the United States on which it was based concern me greatly. The written decision suggests that the bird strike risk at the Washington County field site (Site C) is similar to other sites in the area and

that a standard Bird Aircraft Strike Hazard Plan can be developed to mitigate this concern. This conclusion is erroneous. It completely ignores the data that show that Sites A, B, C, and D are forecast as Severe at almost half of the year and that two sites (D and C) are situated extremely close to areas known to support large populations of wintering waterfowl. The decision also ignores the recommendation that radar should be used if Sites A, B, C, or D are selected and that the use of radar for real-time bird avoidance is still in development and not currently part of naval air operations anywhere in the world.

I understand that there are many factors that are considered in selecting a new OLF and that BASH concerns are only one. I do think, however, that in light of the extraordinary concentration of large flocking birds in close proximity to the Washington County site, and the very limited studies that have been conducted there, that the **bird strike risk** should be revisited and that a safer location considered. Additionally, a detailed assessment of bird detection radar systems should be conducted to determine the capability and reliability of the systems commercially available.

Sincerely,

Ronald L. Merritt  
President, DeTect Inc.

Cc: Governor Michael F. Easley

Encl. Resume



Panama City, Florida, USA

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**Ronald L. Merritt**  
**Senior Scientist**  
**DeTect Inc.**  
**Bashman@aol.com**

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## **Education**

B.S. Zoology, University of Arkansas, 1975  
M.S. Biology, North Texas State University, 1978  
Graduate Studies, PhD-ABD, University of North Texas,  
1987

## **Professional Organizations**

Bird Strike Committee – USA  
National Military Fish and Wildlife Association  
Air National Guard Civil Engineering Association

## **Experience**

Mr. Merritt has been instrumental to the development of AHAS, a methodology for providing bird strike risk assessments for low-level, military flight operations. Mr. Merritt is a retired Air Force major with over 20 years of experience as scientist and senior staff biologist. He was an Assistant Professor of Biology at the United States Air Force Academy and the course director for the department's largest core course in general biology. As an officer assigned to the Air Force Institute of Technology, he conducted research in environmental physiology and aquatic toxicology. The last seven years of his Air Force career were spent as the Chief of the Bird Aircraft Strike Hazard (BASH) Team, Environmental Engineering Division, Pentagon, Washington D.C., and later at the Air Force Civil Engineering Support Agency, Tyndall AFB, Florida. He was responsible for providing on-site technical assistance to major commands and bases worldwide in reducing bird strike hazards on airfields and weapons ranges. Additionally, he assisted flying units in developing and scheduling operations on high-speed low-level training routes to avoid hazardous bird concentrations. During this time he conducted on-site surveys of bird and wildlife hazards at over 85 airports in 12 countries. He provided technical assistance in the investigation of eleven aircraft mishaps. He was the Air Force expert witness in public hearings and legal proceedings concerning off base land use issues that posed bird and wildlife hazards to aircraft operations. Mr. Merritt has conducted research at many landfills and commercial airports to identify potential bird/wildlife hazards, develop comprehensive management plans, and conduct control training. His experiences in aircraft operations as well as academic and technical aspects of biological sciences have allowed Mr. Merritt to gain a sound background in biological issues that pertain to aviation safety and the associated federal, state, and military regulations concerning these issues. This knowledge has been enhanced by extensive worldwide field experience in airfield evaluations, investigations, and classroom instruction and training. He has given lectures on bird strike hazards and related topics at international conferences in Spain, Germany, England, Finland, Belgium, Israel, New Zealand, Panama, Canada, and Chile.

DeTect Inc., 621 West Baldwin Road, Panama City, Florida 32405  
850.763.7200



**DEPARTMENT OF THE NAVY**

ATLANTIC DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
6506 HAMPTON BLVD  
NORFOLK VA 23508-1278

TELEPHONE NO:

(757) 322-4616

IN REPLY REFER TO:

11010

BD32KJ/0586

16 December 2003

Dear Interested Party:

The Marine Corps has prepared an Environmental Assessment and issued a Finding of No Significant Impact (FONSI) for the establishment of special use airspace in the form of two Military Operations Areas in northeastern North Carolina. The signed FONSI is included as an attachment to this letter.

Copies of the EA are available at local libraries and at <http://www.tamsconsultants.com/moas/>, for public review.

**Washington**

George H. and Laura E. Brown Library, 122 Van Norden Street  
Beaufort-Hyde-Martin Regional Library, 158 N. Market Street

**Beaufort**

Carteret County Public Library, 210 Turner Street

**New Bern**

Craven-Pamlico-Carteret Regional Library, 400 Johnson Street  
Godwin Memorial Library, Craven Community College, 800 College Court

**Manteo**

Manteo Library, Virginia Dare Highway

**Hatteras**

Hatteras Library, Highway 12, Hatteras Community Center

**Plymouth**

Washington County Library, 201 East Third Street

**Hyde**

Mattamuskeet Library, 20418 US 264, Swanquarter

**Columbia**

Tyrrell County Library, 414 Main Street

Any questions or comments should be directed to: Commanding General, Attn: Public Affairs Officer, Building 198, Marine Corps Air Station, Cherry Point, North Carolina 28533, telephone (252) 466-4241.

Sincerely,

A. KEITH JENKINS  
Environmental Planner

**EXHIBIT**

8

**Quality Performance ... Quality Results**

**DEPARTMENT OF DEFENSE  
DEPARTMENT OF NAVY**

**FINDING OF NO SIGNIFICANT IMPACT FOR PROPOSED MILITARY  
OPERATIONS AREAS IN EASTERN NORTH CAROLINA**

Per Council on Environmental Quality regulations (40 CFR Parts 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA) the Department of the Navy gives notice that an Environmental Assessment (EA) has been prepared and that an Environmental Impact Statement is not required for the establishment of new special use airspace (SUA) in eastern North Carolina in the form of Military Operations Areas (MOAs). The proposed action is to create two functionally independent MOAs that will enhance existing and future training opportunities for the Second Marine Aircraft Wing (2d MAW) and other aircraft operating out of Marine Corps Air Station (MCAS) Cherry Point. The preferred alternative, and the one I have selected, is to establish the Core and Mattamuskeet MOAs.

The first of the proposed MOAs will provide a capability to conduct tactically realistic high-speed (sub-sonic) ingress (sea-to-land) and egress (land-to-sea) operations at altitudes above 3000 feet (ft) mean sea level (MSL). Only one alternative, referred to in the EA as the Core MOA, is available to meet this particular Marine Corps training need. The second proposed MOA will provide a capability to conduct essential sub-sonic aviation training activities that do not require restricted airspace but for safety reasons need to occur in a MOA. The alternatives evaluated in the EA, which meet this particular training need, are the Mattamuskeet and Cherry MOAs.

In addition to evaluating the alternatives individually, combinations of the alternatives are also analyzed in the EA. The combinations considered are the Core and Mattamuskeet MOAs and the Core and Cherry MOAs. The Core and Mattamuskeet MOA combination alternative is the preferred alternative. The Core MOA will overlie a portion of North Carolina's Core Banks (Carteret County), extending 35 nautical miles (NM) (65 kilometers [km]) along the Core Banks from about 8 miles northeast of the Cape Lookout lighthouse to about 1.25 miles (2 km) from the eastern end of Portsmouth Island. The MOA will also extend about 3 NM (6 km) to the southeast over the Atlantic Ocean. The Mattamuskeet MOA will overlie portions of North Carolina's Beaufort, Hyde, Pamlico, Tyrell, and Washington Counties, with approximate dimensions of 25 by 30 miles (46 by 56 km).

The MOAs will affect "boxes" of airspace between 3,000 ft (914 m) and 18,000 ft (5,486 m) MSL. These altitude restrictions will allow for minimal potential conflicts between non-participatory civil aircraft operations and military operations within the MOAs because civil aircraft operations will be able to continue to occur at all times below the floor of the MOA and above the ceiling without restriction. When in use by military aircraft, the MOAs will still be enterable by non-participatory aircraft when the pilot is (1) flying Instrument flight Rules (IFR) and IFR separation can be provided by MCAS Cherry Point Radar and Air Traffic Control Facility (otherwise, the pilot will be rerouted around the MOA); or (2) flying Visual Flight Rules and the pilot is using "see and avoid" techniques. No public airports are located within the land areas underlying either the Core or Mattamuskeet MOAs. Activities that may occur at private airstrips situated beneath the proposed MOAs will not be affected.

The following environmental resources/factors were analyzed in the EA:

- Noise – Operations with the MOAs will be subsonic. The Core MOA will receive an average of 6 sorties (of less than a minute each in duration) per day. The Mattamuskeet MOA will receive an average of 9.3 sorties per day (of approximately 45 minutes each). Approximately 65 percent of the sorties flown in the Core MOA will be at altitudes above 5,000 ft MSL, and about 75 percent of the sorties flown in the Mattamuskeet MOA would be above 10,000 ft MSL.



Assuming even distribution of flights throughout the MOAs any specific point on the ground underneath the MOAs could be exposed to single event noise levels in excess of 77 decibels, but not more than 96 decibels, for an average of 20 minutes per day (Mattamuskeet MOA) and approximately 2.3 minutes per day (Core MOA). Average day-night noise levels will be below 50 decibels.

- **Safety and Hazardous Materials Management** – Bird/aircraft strike hazards are a serious concern for military aircraft operations. In rare circumstances, aircraft may encounter birds at high altitudes. However, data from the US Air Force Aviation Safety Division indicates that bird/aircraft strike mishaps, for which altitude is known, occur predominately (98.4 percent of the time) below 3,000 ft.
- **Natural Resources** – The proposed action will increase the number of overflights, which may result in more frequent flushing of species that are sensitive to aircraft noise. Flushing due to overflights could result in decreased feeding time or an increase in energy expenditure that could contribute to the many causes of stress-induced mortality during migration. However, based on the nature of the proposed action, the available research, and comparisons to other areas of eastern North Carolina with heavy military overflight activity, we do not expect significant levels of these impacts to occur. The proposed action is not likely to adversely affect federally listed threatened or endangered species, and will have minimal potential to affect other wildlife species, water quality, or fish and wildlife habitat.
- **Cultural Resources** – Aircraft noise generated in the MOAs will not be sufficiently loud or of long enough duration to damage historic structures or affect the integrity of historic properties.
- **Socioeconomics and Community Facilities** – Impacts to socioeconomic resources will not be significant as the proposed action will not involve new permanent or temporary personnel, realignment or construction of facilities, nor any related shifts in spending, housing, or population distribution. Visitors to parks and wildlife refuges underneath the MOAs will be exposed to increased noise levels but only for short time periods. Flight paths within the MOAs will be random, so repeated overflights of any particular location within the lands underneath the MOAs is unlikely.
- **Land Use and Coastal Zone Management** – The proposed action will not alter existing facilities or require new development. The proposed action is fully consistent with the applicable enforceable coastal zone management policies of the state of North Carolina.
- **Air Quality** – All flight activities in the MOAs will occur above the Environmental Protection Agency defined mixing height for pollutants (3000 ft), which is the height above which all pollutants are dispersed in the atmosphere without reaching or affecting ground-level air quality conditions. Therefore, emissions released in the MOA will have no measurable ground-level effects.

The EA also analyzed the potential for cumulative effects, which are impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. The cumulative impacts analysis in the EA included the following four actions: introduction of the F/A-18 E/F aircraft to the US Atlantic Fleet, retirement of F-14 aircraft, development of a new Department of the Navy Outlying Landing Field (OLF), and initial F-22 operational wing bed-down. On September 3, 2003 the Navy announced its decision to homebase 8 fleet squadrons (96 aircraft) and the Fleet Replacement Squadron (FRS) (24 aircraft) at Naval Air Station (NAS) Oceana, Virginia, and 2 fleet squadrons (24 aircraft) at Marine Corps Air Station (MCAS) Cherry Point, North Carolina, and to construct an outlying landing field (OLF) in Washington County, North Carolina. The combination of the Core and Mattamuskeet MOAs and development of the Washington County OLF will not result in cumulative noise impacts because the noise contours of the OLF site fall outside the MOA boundaries. Implementation of the Navy's decision will result in an overall increase in usage of the MOAs. The EA accounted for this information when average sorties were calculated for each MOA and

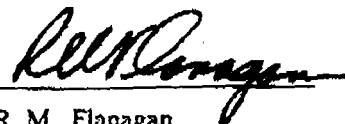
determined that average day-night noise levels will remain below 50 decibels. Cumulative impacts on airspace usage will be minor as non-participatory general aviation aircraft will be able to safely transit below the 3000 ft floor of the MOA at all times and within the MOA as described earlier, and through the airspace surrounding the OLF airfield at an altitude at or below 2500 feet above ground level after obtaining clearance through the OLF control tower. The decommissioning of F-14 squadrons is anticipated to be complete by fiscal year 2010. Finally, no cumulative impacts would arise from the F-22 Operational Wing Bed-down as these aircraft are not likely users of the MCAS Cherry Point MOAs and will only be occasional users of other NC (US Air Force controlled) airspace.

Establishment of the Core and Mattamuskeet MOAs will not result in significant impacts with regard to any of the issues investigated in the EA. For this reason, no environmental impact statement needs to be prepared. This decision will be implemented, i.e. the MOAs established, through approval and review processes of the Federal Aviation Administration (FAA). The FAA considers MOA proposals non-rulemaking and outlines specific processing criteria in FAA Order 7400.2. The Marine Corps will submit a proposal package (including this EA) to the FAA Atlanta regional office for review of content and compliance with FAA regulations for oversight and approval of airspace. Per FAA Order 7400.2 the FAA will coordinate with potentially affected airports and air traffic control facilities, other FAA offices and adjacent regional FAA air traffic divisions. FAA will provide for a 45-day public comment period, and will review comments received and the results of coordination as described above. Upon successful completion of this process the Atlanta FAA regional office will forward the proposal to FAA headquarters for review, final determination and processing. MOA approval will be published in the National Flight Data Digest (NFDD) on or before the applicable charting cutoff date.

The proposed action will comply with existing federal regulations and with state, regional, and local policies and programs. The proposed action will be in compliance with all federal acts, executive orders, and policies. The EA prepared to address this action may be obtained from: Commanding General, Attn: Public Affairs Officer, Building 198, Marine Corps Air Station, Cherry Point, North Carolina 28533 telephone (252) 466-4241.

10 Dec 03

Date



R. M. Flanagan  
Major General, U.S. Marine Corps  
Commanding General  
Marine Corps Air Station, Cherry Point